

---

**MILITARY MEDICAL ETHICS**  
**Volume 1**

---



The Coat of Arms  
1818  
Medical Department of the Army

A 1976 etching by Vassil Ekimov of an  
original color print that appeared in  
*The Military Surgeon*, Vol XLI, No 2, 1917

---

The first line of medical defense in wartime is the combat medic. Although in ancient times medics carried the caduceus into battle to signify the neutral, humanitarian nature of their tasks, they have never been immune to the perils of war. They have made the highest sacrifices to save the lives of others, and their dedication to the wounded soldier is the foundation of military medical care.

---

# Textbooks of Military Medicine

Published by the

*Office of The Surgeon General  
Department of the Army, United States of America*

Editor in Chief and Director  
Dave E. Lounsbury, MD, FACP  
Colonel, MC, US Army  
*Borden Institute  
Assistant Professor of Medicine  
F. Edward Hébert School of Medicine  
Uniformed Services University of the Health Sciences*

Military Medical Editor  
Ronald F. Bellamy, MD  
Colonel, US Army, Retired  
*Borden Institute  
Associate Professor of Military Medicine  
Associate Professor of Surgery  
F. Edward Hébert School of Medicine  
Uniformed Services University of the Health Sciences*



**T**he Borden Institute seeks to collect, publish, and promote all aspects of the unique body of scholarship that constitutes military medicine.

The *Textbooks of Military Medicine* series was conceived in 1987 by then Colonel Russ Zajtchuk and made a reality by Donald P. Jenkins, PhD. A mission of the Borden Institute, the TMM series is published under the aegis of The Surgeon General of the US Army. The Borden Institute draws on Army, Navy, Air Force, Public Health Service, and civilian resources to develop these volumes.

#### **Published Textbooks**

Medical Consequences of Nuclear Warfare (1989)  
Conventional Warfare: Ballistic, Blast, and Burn Injuries (1991)  
Occupational Health: The Soldier and the Industrial Base (1993)  
Military Dermatology (1994)  
Military Psychiatry: Preparing in Peace for War (1994)  
Anesthesia and Perioperative Care of the Combat Casualty (1995)  
War Psychiatry (1995)  
Medical Aspects of Chemical and Biological Warfare (1997)  
Rehabilitation of the Injured Soldier, Volume 1 (1998)  
Rehabilitation of the Injured Soldier, Volume 2 (1999)  
Medical Aspects of Harsh Environments, Volume 1 (2002)  
Medical Aspects of Harsh Environments, Volume 2 (2002)  
Ophthalmic Care of the Combat Casualty (2003)  
Military Preventive Medicine, Volume 1 (2003)  
Military Medical Ethics, Volume 1 (2003)  
Military Medical Ethics, Volume 2 (2003)



J.O. Chapin

*The Doctor in War*

1944

The fifth of seven images from the series *The Seven Ages of a Physician*. The series depicts the life progression of a doctor from birth to first encounter with suffering, through medical training, professional experience, service to country during war, and research to further knowledge. The heritage of military medicine is readily apparent in the depiction of casualties from various wars. As he treats this casualty he draws upon the experience of those physicians who have treated the casualties of war in the past. Likewise, his knowledge, passed to the next generation, continues this tradition of caring that is military medicine.

Art: Courtesy of Novartis Pharmaceuticals.

# MILITARY MEDICAL ETHICS

## VOLUME 1

---

### *Specialty Editors*

THOMAS E. BEAM, MD  
*Formerly Director, Borden Institute  
Formerly, Medical Ethics Consultant to The Surgeon General, United States Army*

LINETTE R. SPARACINO, MA  
*Borden Institute*

### *Section Editors*

MEDICAL ETHICS  
EDMUND D. PELLEGRINO, MD  
*John Carroll Professor of Medicine and Medical Ethics  
Georgetown University, Washington, DC*

MILITARY ETHICS  
ANTHONY E. HARTLE, PhD  
*Professor of Philosophy, Department of English  
United States Military Academy, West Point, New York*

THE SYNTHESIS OF MEDICINE AND THE MILITARY  
EDMUND G. HOWE, MD, JD  
*Director, Programs in Ethics, Uniformed Services University of the Health Sciences  
Chair, Committee of Department of Defense Ethics Consultants to the Surgeons General*

---

*Office of The Surgeon General  
United States Army  
Falls Church, Virginia*

*Borden Institute  
Walter Reed Army Medical Center  
Washington, DC*

*Uniformed Services University of the Health Sciences  
Bethesda, Maryland*

2003

**Editorial Staff:** Lorraine B. Davis  
Senior Production Manager  
Linette R. Sparacino  
Volume Editor

Douglas Wise  
Senior Layout Editor

---

This volume was prepared for military medical educational use. The focus of the information is to foster discussion that may form the basis of doctrine and policy. The opinions or assertions contained herein are the private views of the authors and are not to be construed as official or as reflecting the views of the Department of the Army or the Department of Defense.

**Dosage Selection:**

The authors and publisher have made every effort to ensure the accuracy of dosages cited herein. However, it is the responsibility of every practitioner to consult appropriate information sources to ascertain correct dosages for each clinical situation, especially for new or unfamiliar drugs and procedures. The authors, editors, publisher, and the Department of Defense cannot be held responsible for any errors found in this book.

**Use of Trade or Brand Names:**

Use of trade or brand names in this publication is for illustrative purposes only and does not imply endorsement by the Department of Defense.

**Neutral Language:**

Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men.

---

CERTAIN PARTS OF THIS PUBLICATION PERTAIN TO COPYRIGHT RESTRICTIONS.  
ALL RIGHTS RESERVED.

NO COPYRIGHTED PARTS OF THIS PUBLICATION MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL (INCLUDING PHOTOCOPY, RECORDING, OR ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM), WITHOUT PERMISSION IN WRITING FROM THE PUBLISHER OR COPYRIGHT OWNER.

Published by the Office of The Surgeon General at TMM Publications  
Borden Institute  
Walter Reed Army Medical Center  
Washington, DC 20307-5001

**Library of Congress Cataloging-in-Publication Data**

Military medical ethics / specialty editors, Thomas E. Beam, Linette R. Sparacino ; section editors, Edmund D. Pellegrino, Anthony E. Hartle, Edmund G. Howe.  
p. ; cm. -- (Textbooks of military medicine)  
Includes bibliographical references and index.  
1. Medicine, Military--Moral and ethical aspects. 2. Military ethics. 3. Medical ethics. I. Beam, Thomas E. II. Sparacino, Linette R. III. Series  
[DNLM: 1. Military Medicine--ethics. 2. Military Personnel--psychology. 3. Physicians's Role. 4. War. UH 390 M6437 2003]  
RC971.M638 2003  
174'.2--dc22

2003057728

PRINTED IN THE UNITED STATES OF AMERICA

10, 09, 08, 07, 06, 05, 04, 03

5 4 3 2 1

# Contents

Contributors	xi
Foreword by The Surgeon General	xiii
Preface	xv
<b>Section I: Medical Ethics</b>	<b>1</b>
1. The Moral Foundations of the Patient–Physician Relationship: The Essence of Medical Ethics Edmund D. Pellegrino The patient–physician relationship has evolved throughout the centuries, remaining the central basis for medical care during eras of paternalism, autonomy, and managed care.	3
2. Theories of Medical Ethics: The Philosophical Structure David C. Thomasma Medical ethics applies philosophical theories to clinical problems. There are competing theories, each with strengths and weaknesses, that can be used to analyze ethical issues.	23
3. Clinical Ethics: The Art of Medicine John Collins Harvey Clinical ethics is the practical application of ethical theory at the bedside. Ethics consultants and educators help clinicians grapple with ethical dilemmas in the patient–physician relationship. Seminal cases are discussed in an attachment to the chapter.	61
4. The Science Behind the Art: Empirical Research on Medical Ethics Daniel P. Sulmasy Research into the application of medical ethics uses rigorous methods of inquiry to examine the current status of thinking in the field. It describes, rather than applies, the use of ethical analysis in actual situations, including those unique to the military.	105
<b>Section II: Military Ethics</b>	<b>127</b>
5. The Profession of Arms and the Officer Corps Anthony E. Hartle The professional ethic for the American military has strong roots in history and provides a rich tradition and basis for right action in the pluralistic culture in society today.	129
6. Honor, Combat Ethics, and Military Culture Faris R. Kirkland Honor, one of the core values in military service, should be reciprocal between superiors and subordinates. Ethical leadership is an essential responsibility of those entrusted to command soldiers in combat.	157
7. The Military and Its Relationship to the Society It Serves Nicholas G. Fotion There are several models describing the relationship between the military and the society it serves that reflect the tension between a closed military culture and one more similar to, or even identical to, the civilian culture.	199
8. Just War Doctrine and the International Law of War William V. O'Brien and Anthony C. Arend Decisions to resort to war and how to conduct a war have been analyzed using moral theory. International laws of war and international conventions attempt to codify moral and legal restraints on these decisions.	221
9. The Soldier and Autonomy Sandra L. Visser The military mission requires significant individual sacrifices from the soldier, including some of his autonomy. Appropriately balancing individual liberty with the needs of the military requires rigorous ethical analysis and justification.	251

<b>Section III: The Synthesis of Medicine and the Military</b>	<b>267</b>
10. Physician-Soldier: A Moral Profession	269
William Madden and Brian S. Carter	
The profession of medicine may appear to have opposite goals from the profession of arms, in that one involves healing and the other killing. In reality, however, the professions and their goals are remarkably similar and morally can be combined.	
11. Physician-Soldier: A Moral Dilemma?	293
Victor W. Sidel and Barry Levy	
In contradistinction to the previous chapter, these authors contend that conflicts arising between the ethos of both professions make it morally impossible for physicians to serve in the military.	
Responses to the chapter by Edmund G. Howe, MD, JD and Dominic R. Rascona, MD	
12. Mixed Agency in Military Medicine: Ethical Roles in Conflict	331
Edmund G. Howe	
Mixed agency involves the conflict between duties to the individual patient and those to the military. Ethical analysis can be applied to resolving this conflict and, by so doing, emotional distress to the physician can be minimized.	
Abbreviations and Acronyms	xix
Index	xxiii



# Contributors

**PAUL J. AMOROSO, MD, MPH**

Colonel, Medical Corps, United States Army; Research Epidemiologist and Project Director, Total Army Injury and Health Outcomes Database Project, United States Army Research Institute of Environmental Medicine, MCMR-EMP, 42 Kansas Street, Natick, Massachusetts 01760-5007

**ANTHONY C. AREND, PhD**

Professor of Government and Adjunct Professor of Law, Georgetown University, 4000 Reservoir Road, Washington, DC 20056

**THOMAS E. BEAM, MD**

Colonel (Retired), Medical Corps, United States Army

**BRIAN S. CARTER, MD, FAAP**

Associate Professor, Department of Pediatrics, Vanderbilt University, A-0126 Medical Center North, Nashville, Tennessee 37232-23707

**DAVID M. DeDONATO, MDIV, MA, BCC (APC)**

Director of Pastoral Care, Lexington Medical Center, West Columbia, South Carolina 29169

**NICHOLAS G. FOTION, PhD**

Professor, Department of Philosophy, Emory University, Atlanta, Georgia 30322

**MICHAEL E. FRISINA, MA**

Administrative Director, Surgical Services, Tuomey Healthcare System, 129 North Washington Street, Sumter, South Carolina 29150

**SHELDON H. HARRIS, PhD**

Professor Emeritus of History, California State University, Northridge, California (Dr. Harris died August 31, 2002)

**ANTHONY E. HARTLE, PhD**

Colonel, Corps of Professors, United States Military Academy, United States Army; Professor of Philosophy, Department of English, United States Military Academy, West Point, New York 10996-1791

**JOHN COLLINS HARVEY, MD, PhD**

Professor of Medicine Emeritus, Georgetown University; Senior Research Scholar, Kennedy Institute of Ethics, Georgetown University; and Senior Research Scholar, Center for Clinical Bioethics, Georgetown University Medical Center, 4000 Reservoir Road, NW, #D-238, Washington, DC 20057

**EDMUND G. HOWE, MD, JD**

Director, Programs in Ethics, Professor of Psychiatry, and Associate Professor of Medicine, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, Maryland 20814; and Chair, Committee of Department of Defense Ethics Consultants to the Surgeons General

**FARIS R. KIRKLAND, PhD**

Lieutenant Colonel (Retired), Field Artillery, United States Army (Dr. Kirkland died February 22, 2000)

**SUSAN E. LEDERER, PhD**

Assistant Professor, Section of the History of Medicine, Yale University School of Medicine, Yale University, 333 Cedar Street, New Haven, Connecticut 06520-8015

**BARRY S. LEVY, MD, MPH**

Adjunct Professor of Community Health, Tufts University School of Medicine, 20 North Main Street, #200, Post Office Box 1230, Sherborn, Massachusetts 01770

**WILLIAM MADDEN, MD**

Associate Professor of Clinical Pediatrics, Department of Pediatrics and Steele Memorial Children's Research Center, College of Medicine, University of Arizona, 1501 North Campbell Avenue, Tucson, Arizona 85724

**RICK D. MATHIS, JD, MDIV, MA**

Lieutenant Colonel, Chaplain Corps, United States Army; Staff Chaplain, 18th Military Police Brigade, Mannheim, Germany; HHC 18th MP Bde, Unit 29708, APO AE 09028

**ROBERT L. MOTT, MD, MPH**

Major, Medical Corps, United States Army; Deputy Director, General Preventive Medicine Residency, United States Army Center for Health Promotion and Preventive Medicine, Walter Reed Army Institute of Research, Building 503, Silver Spring, Maryland 20910-7500

**WILLIAM V. O'BRIEN, PhD**

Professor of Government Emeritus (Retired), Georgetown University, 4000 Reservoir Road, Washington, DC 20056

**EDMUND D. PELLEGRINO, MD, MACP**

John Carroll Professor of Medicine and Medical Ethics, Georgetown University; Senior Research Scholar, Kennedy Institute of Ethics, Georgetown University; and Senior Research Scholar, Center for Clinical Bioethics, Georgetown University Medical Center, 4000 Reservoir Road, NW, #D-238, Washington, DC 20057

**ROBERT S. POZOS, PhD**

Professor of Biology, San Diego State University, 5500 Campanile Drive, San Diego, California 92182-4616

**ROBERT N. PROCTOR, PhD**

Helen and Walter Ferree Professor of the History of Science and Co-Director, Science, Medicine, and Technology in Culture, Pennsylvania State University, University Park, Pennsylvania 16802

**DOMINIC RASCONA, MD, FACP, FCCP**

Commander, Medical Corps, United States Navy; Assistant Director, Critical Care, Naval Medical Center, Portsmouth, Virginia

**ELSPETH CAMERON RITCHIE, MD**

Lieutenant Colonel, Medical Corps, United States Army; Program Director, Mental Health Policy and Women's Health Issues, Office of the Secretary of Defense, Health Affairs, Skyline 5, Suite 601, 5111 Leesburg Pike, Falls Church, Virginia 22041-3206



**VICTOR W. SIDEL, MD**

Distinguished University Professor of Social Medicine, Montefiore Medical Center, Albert Einstein College of Medicine, 111 East 210th Street, Bronx, New York 10467; Adjunct Professor of Public Health, Weill Medical College of Cornell University, New York

**JANET R. SOUTHBY, RN, DNSc**

Colonel (Retired), Nurse Corps, United States Army; Associate Director, Interagency Institute for Federal Health Care Executives, School of Public Health and Health Services, The George Washington University Medical Center, Washington, DC

**JAY STANLEY, PhD**

Professor Emeritus of Sociology and Director, Symposium for Peace, War and Military Studies, Department of Sociology and Anthropology, Towson University, Towson, Maryland 21204-7097

**DANIEL P. SULMASY, OFM, MD, PhD**

Professor of Medicine and Director of the Bioethics Institute, New York Medical College, Valhalla, New York; and Sisters of Charity Chair in Ethics, John J. Conley Department of Ethics, Saint Vincent's Hospital and Medical Center, 153 West 11th Street, New York, New York 10011

**DAVID C. THOMASMA, PhD**

Professor and English Chair of Medical Ethics, Neiswanger Institute of Bioethics and Health Policy, Stritch School of Medicine, Loyola University Chicago, 2160 South First Avenue, Maywood, Illinois 60153 (Dr. Thomasma died April 25, 2002)

**SANDRA L. VISSER, PhD**

Associate Professor, Department of Philosophy, Valparaiso University, Valparaiso, Indiana 46383

**LEWIS C. VOLLMAR, JR, MD, MBA, MA (Law)**

Colonel (Retired), Medical Corps, United States Army Reserve; Dermatology Section Chief, St. Anthony's Hospital, 10004 Kennerly Road, Suite 300, St. Louis, Missouri 63128-2175

**LYNN L. WENGER, MBA**

Formerly, Human Research Support Program Coordinator, The Soldiers Systems Command, Natick, Massachusetts

**JOAN T. ZAJTCHUK, MD, SPEC IN HSA**

Colonel (Retired), Medical Corps, United States Army; Professor of Otolaryngology and Bronchoesophagology, Center for Advanced Technology and International Health, Rush-Presbyterian-St. Luke's Medical Center, 600 South Paulina, Suite 524, Chicago, Illinois 60612-3832

# Foreword

These two volumes of the *Textbook of Military Medicine* address medical ethics within a military context, a heretofore essentially unexplored field. Military medical care is practiced across a wide spectrum of settings, ranging from garrison medicine, through deployments for Operations Other Than War (OOTW), and extending to massive deployments of personnel and materiel in a large-scale conventional war. Within a peacetime garrison setting, military medical ethics has many similarities to civilian medical ethics and usually uses the same decision-making processes. It is similar in that the patient–physician relationship is generally the same, as are the goals of therapy. Patient autonomy takes priority in clinical decisions. However, the very nature of the military mission, especially when it involves deployment or combat, precludes military medical ethics from being identical to civilian medical ethics. Within military medicine, there is a significant dichotomy between medicine’s healing and the military’s injuring. Conflicts can arise between duties to the patient and to the command structure. The battlefield introduces totally unique stressors and criteria for decision making. These differences demonstrate the need for these two volumes and their exploration will be its primary emphasis.

The study and discussion of military medical ethics is inherently controversial and troubling. Those who serve in the armed services understand the complexities and problems that the military mission can introduce to the delivery of effective medical healthcare. For instance, rarely does the issue of national security play a role in the day-to-day medical decisions in a civilian setting. The military, however, as the sentry and defender of the nation, is tasked with maintaining security. Survival of the nation can be a powerful driving force behind medical decisions, whether they are correct, just, or legal. One need look no further in our own past than the recently revealed radiation experiments from the Cold War era to understand this. Certainly the lessons to be learned from the perversion of medicine in Germany and Japan, both before and during World War II, are ones to be carefully examined and never forgotten. We constantly strive to remember those lessons, to learn from them, and to attempt to ensure that we do not repeat the travesties of the past. It is all too easy to look at others’ sins and be smug in our own virtue. While controversy is seldom comfortable, it should always be instructive. An excellent organization is willing to publicly examine and discuss its mistakes and to learn from them. *Military Medical Ethics* is offered in that spirit. These volumes may offend. They may stir emotions. They are intended to illuminate. If we cannot bear to look at past mistakes, particularly when they are ours, we cannot learn from them and therefore we cannot prevent them in the future.

I strongly encourage all military medical officers, commanders, and others involved in ethical decision making in medicine study this two volumes. Examine your responses and analyze your decision-making processes. Those who are willing to give the supreme sacrifice in the service of their country are entitled to nothing less than the best ethical decisions made in providing superior medical care to them and their families.

Lieutenant General James B. Peake  
The Surgeon General  
US Army

Washington, DC  
April 2003



# Preface

These two volumes will explore the subject of military medical ethics and attempt to meld the somewhat disparate disciplines of medical ethics and military ethics. When this project was in the developmental stage, a great deal of consideration was given to how to approach this conceptually difficult subject. We concluded that the most logical approach would be to first explore the two underlying ethics that contribute to the profession—medical ethics and military ethics—before beginning a more detailed discussion of military medical ethics. As part of this structural process, we identified a unifying theme and supporting subthemes that would provide the map for these two volumes.

Our unifying theme is straightforward: There is a tension within the persona of the military physician between the profession of medicine and the profession of arms, and that tension is good. There is, also, an ethic to what the military physician does, especially on and off the battlefield. That is the ethic of conserving the fighting strength by providing excellent medical care to military personnel. This military medical ethic helps to ensure that the military patient receives the best care possible under what can be horrific conditions. It is this ethic that also sustains the military physician in situations that are simply not imaginable to those who have not been there. The tension; the tempo; the terror; the sights, sounds, and smells cannot be adequately conveyed with words because the experience is so visceral.

The tension between the role of physician and the role of uniformed service member at times is not discernible; at other times its presence weighs heavily. We contend that this is good, indeed essential. Without this tension there is the very real risk of medicine in the service of the State—medicine that first and foremost views the whole group as the patient. The tension between the professions of medicine and arms is therefore desirable and must be maintained. There is a benefit in the “disease” that military physicians may experience. It helps them to maintain perspective and to deliver the best care possible for their patients.

The subthemes supporting that contention are many, and are woven throughout the sections and chapters. We will review those subthemes in the order in which we will present them in the chapters. We hope that our reconciliation of those subthemes now will provide some clarification to what you will read.

The profession of medicine and the profession of arms are both vital and honorable professions. The first two sections of this textbook, titled simply “Medical Ethics” and “Military Ethics,” will explore these professions as separate entities. Before we can understand the dynamics involved in the joining of these professions, we need to understand them separately. The first section, Medical Ethics, is a four-chapter presentation of the subject, an enormous condensation considering the wealth of material available. The chapters explore the ideal patient–physician relationship, the varying ethical theories that describe how a physician views the relationship, as well as how that relationship functions in the clinical encounter. The section also discusses how one can evaluate the science behind the art of medical ethics. In short, this was a compendium of medical ethics without regard to locale, that is, whether military or civilian. That is not to say it was without regard to culture, for it is clearly predominantly Judeo-Christian in viewpoint, and Western in outlook in this book. The authors do note, however, that with increasing diversity in the United States these ethical viewpoints and outlooks will surely evolve.

The second section, Military Ethics, helps to set the stage for the tension between the two professions and those who have roles in both. The discussion of military ethics begins with a review of leadership by the books, of what it means to be an officer (as all military physicians are) in the long tradition of the officer corps. That can be viewed as how it should be or ought to be. We live in a world of human frailties, however. Thus the second chapter in the military ethics section examines what happens when leadership theory and prose meet the exigencies of the battlefield and what is the right thing to do. The third chapter explores the relationship between militaries and their underlying societies. Militaries do what they do in order to preserve the societies that they are sworn to protect. There is a need, often overlooked by both, however, for societies and their militaries to understand one another. In addition, societies and their militaries must understand their role under international law, which dictates what societies and their militaries can and cannot do toward the goal of preserving or maintaining themselves. Militaries, in turn, must restrict the autonomy of their members for these organizations to function. However, the restriction should

not be greater than that necessary to protect the society. In all societies, someone has to have less autonomy so another may have more. The decrement of autonomy applies to all members of the military, whether they are troops or physicians.

Military medicine is a combination of the profession of medicine and the profession of arms. We believe that it is an ethical and honorable profession. It is also, at times, difficult to be a military physician. Indeed, there are times when the military physician may well feel a certain uneasiness in the practice of medicine in the military. The military physician must understand the tension and the value it has. That is why the third section of this textbook, "The Synthesis of Medicine and the Military," has been so difficult to conceptualize and execute. We want to present a variety of views of the military medical professional, including those of our most ardent critics. Thus we offer to the reader three views, although there could well have been many more: (1) the view of military medicine as an honorable profession, (2) the view of military medicine as ethically impossible, and (3) the view that identifies the underlying conflict, that of mixed agency or conflicting loyalties. This allows the physician-soldier to navigate the difficult course of doing the right thing for the right reason.

This three-chapter section was, without any exaggeration, the most problematic of the entire volume. We may offend some with the inclusion of materials from our oftentimes strident critics. But as is noted in "The Military and Its Relationship to the Society It Serves" (Chapter 7), it is vital that a military understands how it is viewed by the very the society it protects. And it is also vital that the same military attempts to converse with that society so that each understands the other a little better. Many in the military are only too keenly aware of the disdain with which their civilian counterparts have held them in the past or do so presently. This disdain, which can fluctuate from barely mentioned to open hostility depending on the circumstances, is all the more reason to include the viewpoints of others in the discussion of the profession of soldier-physician.

Colonel (Retired) Thomas E. Beam  
Formerly Director, The Borden Institute  
US Army

Washington, DC  
April 2003

---

The current medical system to support the U.S. Army at war is a continuum from the forward line of troops through the continental United States; it serves as a primary source of trained replacements during the early stages of a major conflict. The system is designed to optimize the return to duty of the maximum number of trained combat soldiers at the lowest possible level. Far-forward stabilization helps to maintain the physiology of injured soldiers who are unlikely to return to duty and allows for their rapid evacuation from the battlefield without needless sacrifice of life or function.

---





# MILITARY MEDICAL ETHICS

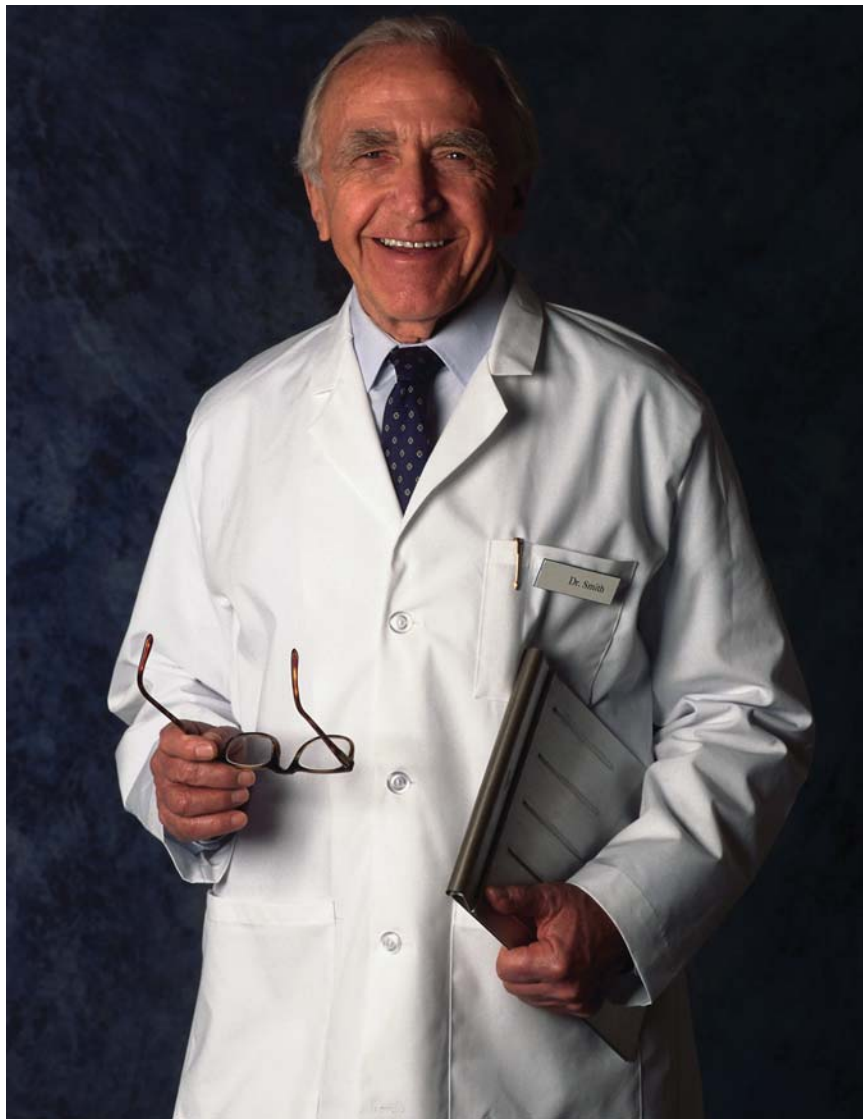
## VOLUME 1

### SECTION I: MEDICAL ETHICS

#### *Section Editor:*

EDMUND D. PELLEGRINO, MD

*John Carroll Professor of Medicine and Medical Ethics  
Georgetown University, Washington, DC*



*Kindly Doctor*

© Royalty-Free / CORBIS. Reproduced with permission.



# Chapter 1

## THE MORAL FOUNDATIONS OF THE PATIENT–PHYSICIAN RELATIONSHIP: THE ESSENCE OF MEDICAL ETHICS

EDMUND D. PELLEGRINO, MD<sup>\*</sup>

---

### INTRODUCTION

#### IS A FOUNDATION FOR MEDICAL ETHICS POSSIBLE?

#### SOME CURRENT MODELS OF THE PATIENT–PHYSICIAN RELATIONSHIP

The Physician as Clinical Scientist

The Physician as Body Mechanic

The Physician as Businessman

The Physician as Social Servant

The Physician as Helper and Healer

Summary of the Models

#### HEALING AND HELPING: THE “END” OF MEDICINE

External Morality

The Ethics Internal to Medicine

Elements of an Internal Morality for Medicine

The Clinical Encounter: Where Internal and External Morality Meet

Medical Ethics and Social Responsibility

Medical Ethics, Culture, and History

A Common Ethics for the Health Professions

### CONCLUSION

<sup>\*</sup>John Carroll Professor of Medicine and Medical Ethics, Georgetown University; Senior Research Scholar, Kennedy Institute of Ethics, Georgetown University; and Senior Research Scholar, Center for Clinical Bioethics, Georgetown University Medical Center, 4000 Reservoir Road, NW, #D-238, Washington, DC 20057; formerly, President, The Catholic University of America, Washington, DC; Director, Kennedy Institute of Ethics, Georgetown University; and Founder, Center for Clinical Bioethics, Georgetown University Medical Center



Photograph of a relief of *The Manifestation of Asclepius During Incubation*. The “model,” or idealized, patient–physician relationship: a patient who is ill and a physician who offers to help. Models of the patient–physician relationship have been developed throughout the history of medicine and have shaped the way physicians and patients have confronted each other. These models in each era have been the result of a fusion of three elements: (1) a philosophy of medicine, (2) the ethos or dominant spirit of medicine itself, and (3) the linkage between these first two elements and some philosophical school. These elements relate to each other in different ways and often recur from era to era, but throughout the eras models often bear resemblance to one another because there is some facet of truth in each that reflects the complexity of the human relationship between one who professes to heal and one who is in need of healing.

© Gianni Dagli Orti/CORBIS; reproduced with permission.

## INTRODUCTION

In medicine, whether in the civilian or military setting, medical ethics begins and ends in the patient–physician relationship. The conception we hold of that relationship shapes the decisions we make in every clinical situation. It sets the standard for right and wrong, good and bad professional conduct. It is the final arbiter of the moral status of every policy affecting the health of individuals or the public. Even public health, military, and penal medicine, which incorporate societal goals, must balance those goals against the realities of the relationship of a patient and a physician. How we see that relationship will determine the kind of society we are, have become, or want to be.

For these reasons, this first chapter is devoted to the moral foundation of the conduct of the patient–physician relationship. Such a foundation, if it is to be adequate as the keystone of the edifice of medical ethics, must at a minimum answer certain key questions: Is there anything morally special about the patient–physician relationship, and if there is, what is it? What does the special nature of the relationship entail with respect to the duties physicians and patients owe each other, the virtues they should exhibit, or the rules, principles, and attitudes that

should guide their interactions in the clinical encounter? These questions are implicit in the later chapters, which define the special nature of the patient–physician relationship in the clinical and the military context.

This chapter confines itself to the ethical aspects of the patient–physician relationship. Its focus therefore is on professional ethics—the ethics of the physician as a professional (and, by analogy, to other health professionals, eg, nurses, dentists, clinical psychologists, social workers). The content of bedside ethical decisions—the ethics of particular clinical dilemmas—is discussed in later chapters. The religious and theological foundations of medical ethics are not included, even though, for many Americans, they are the ultimate source of all morality, in general or in the professional life. Finally, we must not forget that patients and physicians meet each other in an intricate matrix of psychosocial, cultural, and sociohistorical phenomena that can modify the expression of medical ethics.<sup>1</sup> These factors notwithstanding, there is a foundation for the duties of all health professions that is relatively constant across cultures, history, and national boundaries.

### IS A FOUNDATION FOR MEDICAL ETHICS POSSIBLE?

Historically, the Hippocratic Oath (Exhibit 1-1) and ethos were not universally accepted as the foundation for medical ethics by most ancient Greek physicians.<sup>2–4</sup> They originated with a small group of physicians who were eager to distance themselves from the majority of their contemporaries who were itinerant journeymen, businessmen, and craftsmen. In later antiquity, the Hippocratic ethic found favor with the three monotheistic religions and, through their influence, became widely disseminated.<sup>5–7</sup> At least from the late Middle Ages on, and well into the modern era, the moral precepts of the Hippocratic ethic were the standard for the ethical conduct of physicians.<sup>8</sup>

Our concern is not with the evolution of medical ethics as an historical or social epiphenomenon. It is the deeper moral phenomena upon which it has been based that are of importance. It is the existence of these phenomena, which the Hippocratic physicians and their successors grasped intuitively, that accounts for the durability of their ethic across so many centuries, countries, and cultures.

A quarter of a century ago the question of whether or not a foundation for medical ethics was possible

would have seemed a naive question. At that time the Hippocratic ethics, exemplified by the oath, the so-called “deontological” books of the Hippocratic Corpus (dealing with the oath, precepts, the law, decorum, and the physician),<sup>9,10</sup> and its congeners in the Code of the American Medical Association (AMA)<sup>11</sup> and dozens of other codes of medical ethics and variations,<sup>12</sup> were taken for granted as the source and foundation for the ethics of the patient–physician relationship. Today this foundation is no longer secure. An increasing number of ethicists, physicians, and even the public, believe not only that the Hippocratic ethic is out-of-date but that the whole idea of a stable foundation for ethics is no longer tenable.

Several challenges singly, and in combination, have brought about this present state of affairs. Four that seem most important are: (1) the upheaval in social values in the 1960s; (2) the interest in medical ethics by professional philosophers; (3) the transformation of medical ethics into “bioethics”; and (4) the “postmodern” turn of philosophy in general, and moral philosophy in particular.

The first serious contemporary challenge to the Hippocratic foundation was sociopolitical. Beginning



## EXHIBIT 1-1

### THE OATH OF HIPPOCRATES

---

**I** swear by Apollo Physician and Asclepius and Hygieia and Panacea and all the gods and goddesses, making them my witnesses, that I will fulfil according to my ability and judgment this oath and this covenant:

To hold him who has taught me this art as equal to my parents and to live my life in partnership with him, and if he is in need of money to give him a share of mine, and to regard his offspring as equal to my brothers in male lineage and to teach them this art—if they desire to learn it—without fee and covenant; to give a share of precepts and oral instruction and all the other learning to my sons and to the sons of him who has instructed me and to pupils who have signed the covenant and have taken an oath according to the medical law, but to no one else.

I will apply dietetic measures for the benefit of the sick according to my ability and judgment; I will keep them from harm and injustice.

I will neither give a deadly drug to anybody if asked for it, nor will I make a suggestion to this effect. Similarly I will not give to a woman an abortive remedy. In purity and holiness I will guard my life and my art.

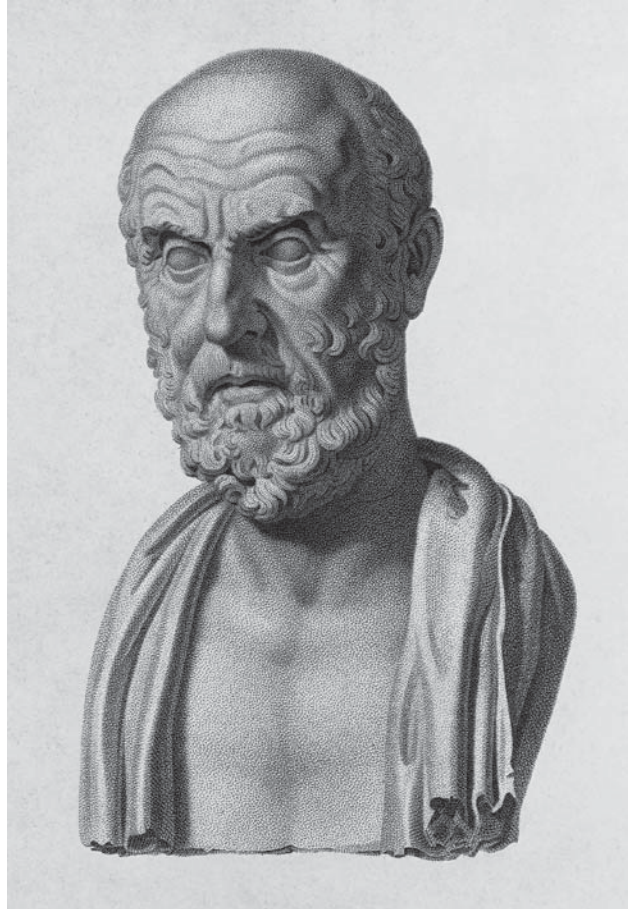
I will not use the knife, not even on sufferers from stone, but will withdraw in favor of such men as are engaged in this work.

Whatever houses I may visit, I will come for the benefit of the sick, remaining free of all intentional injustice, of all mischief and in particular of sexual relations with both female and male persons, be they free or slaves.

What I may see or hear in the course of the treatment or even outside of the treatment in regard to the life of men, which on no account one must spread abroad, I will keep to myself holding such things shameful to be spoken about.

If I fulfil this oath and do not violate it, may it be granted to me to enjoy life and art, being honored with fame among all men for all time to come; if I transgress it and swear falsely, may the opposite of all this be my lot.

Reproduced with permission from: Edelstein L. *The Hippocratic Oath: Text, Translation and Interpretation*. In: Sigerist HE, ed. *Bulletin of the History of Medicine*, Supplement 1. Baltimore, Md: The Johns Hopkins Press; 1943: 3. Artwork © Bettmann/CORBIS; reproduced with permission.



in the late 1960s in America, for various reasons (as discussed further in Chapter 3, Clinical Ethics: The Art of Medicine), all traditional values and sources of moral authority were challenged—religion, the family, parents, teachers, all holders of authority, and all the professions. This was the era of participatory democracy, which saw the rise of the con-

sumer movement, civil rights legislation, the Patient's Bill of Rights, and a rash of student protests against academic tradition and authority. In such a climate physicians, medicine as a privileged profession, and medical ethics were especially vulnerable. They were seen as elitist, monopolistic of power, and self-aggrandizing.

The second challenge came from professional philosophers who for the first time in their history took a serious interest in medical ethics. To be sure, the ancient philosophers often referred to medicine, but neither they nor their modern counterparts ever wrote serious treatises on medical ethics. Only in the last quarter of the 20th century did philosophers examine the moral presuppositions of the traditional ethic. They did so using the conceptual tools of a variety of established moral systems. Each system introduced its own perspective on the relationships between physicians and patients. For example, the followers of the philosophy of Kant, placed their emphasis on patient autonomy; those who followed J.S. Mill chose utility maximization; and followers of W.D. Ross turned to *prima facie* principles (see Chapter 2, *Theories of Medical Ethics: The Philosophical Structure*). As a result, the Hippocratic tradition of benevolence and beneficence was reinterpreted as authoritarian, insensitive to social ethics, and even unjust. Other major precepts, such as the prohibitions against abortion, breaches of confidentiality, and sexual intercourse with patients, were relaxed. Currently, the prohibitions against assisted suicide<sup>13</sup> and euthanasia are under attack. Pressures have steadily mounted for an oath and code more congruent with contemporary mores.<sup>14,15</sup>

The third challenge arose out of the progressive intrusions into medical ethics by law, politics, economics, psychology, and culture. Beginning in the 1980s, a larger view of medical ethics emerged under the new rubric of “bioethics.” Bioethics extended beyond the bedside to social and public policy, ecology, and the environment. In the 1990s scholars in the social sciences entered this broader field. Those outside the field of philosophy challenged philosophical ethics as a rational discipline. They judged it too abstract and insufficient to encompass the full complexity of the moral life. Alternative theories and models of ethics such as casuistry, narrative, virtue, feminist, and caring ethics have been proposed.<sup>16</sup> To remedy these presumed deficiencies, ethics itself has often been reduced to issues of public policy and procedure rather than patient–physician relationships.<sup>17</sup>

The fourth challenge in the erosion of traditional medical ethics arose in the attack on philosophical ethics by the “postmodern” critique of philosophy itself. This critique centers on the claims of reason, itself, to arrive at moral truth. The postmodern critique challenges the traditional pretensions of philosophy to achieve moral truth through reason alone. Postmodernism declares philosophy to be “dead.”<sup>18,19</sup> Secular bioethics is particularly vulner-

able to this critique because it built its endeavor on the post-Enlightenment project of ethics free of metaphysics and religion and dependent only on an autonomous rationality. Postmodernism has become a “deteriorated version of the Enlightenment.”<sup>20(p20)</sup> Postmodernism deprives contemporary bioethics of its rationalist underpinnings and denies it access to any foundation or overarching theory. In this view, any foundation for medical ethics such as the Hippocratic ethic, or the one this chapter shall describe, is *ipso facto* intellectually suspect.

This surely is not the place to attempt the complex task of refutation of the postmodernist thesis. But as Rosen argues, postmodernism reduces philosophy to ideology. This places the ideology of linguistic fashion in the place formerly occupied by philosophy.<sup>19,20(p176)</sup> We may try to eliminate foundations, but there is always a position of last resort beyond which we cannot retreat. Call it what we will, this position of last resort is in fact a “foundation.” Thus antifoundationalism is the postmodernists’ position of last resort.

What is of relevance to this chapter is that contemporary medical ethics faces an important choice with very practical consequences. (For a more detailed discussion of postmodernism and deconstructionism, please see Chapter 3, *Clinical Ethics: The Art of Medicine*.) If medical ethics chooses to go the postmodernist route, it must accept a variously interpreted and deconstructed ethic, one malleable by social and linguistic construction. Profession and patients will fragment further and further into smaller and smaller communities with different and contradictory moral values.<sup>21</sup> A uniform set of moral precepts binding all physicians will no longer be possible. Each therapeutic encounter will become a new negotiable event with its own rules, duties, and principles, or the whole of bioethics will be left to social consensus.<sup>22</sup> Any notion of a foundation for ethics based in respect for human life will be replaced by a technological determinism.<sup>23</sup>

This chapter takes a different pathway—the way of reconstruction of the ethical foundation for medical ethics, not its deconstruction. This does not imply a simplistic reaffirmation of the Hippocratic ethic. A true “reconstruction” means retaining what is valid in the old and enlarging it by new insights. This is not the same as changing ethics to accommodate to social mores. The beginning, a quarter century ago, of formal philosophical reflection on the Hippocratic moral precepts, uncovered a genuine need for their justification beyond mere assertion. This has been salubrious because it changed



medical ethics from a set of free moral assertions into a respectable ethical enterprise. This chapter undertakes a reconstruction of medical ethics out of the empirical phenomena of the clinical encounter and the experiences of illness and healing. These

are the universal phenomena that underlie the relationships of patients and physicians across temporal and cultural barriers. These are the relationships perceived by the Hippocratic physicians but never formally or systematically argued.

### **SOME CURRENT MODELS OF THE PATIENT–PHYSICIAN RELATIONSHIP**

Medicine is a multivariied societal phenomenon in which physicians may play a variety of roles simultaneously. Each role elicits a particular kind of relationship with the patient and entails a particular kind of ethic. One of these roles, the role of healer, is primary; the others are subsidiary. Before turning to the reconstruction of this primary role, it is important to examine some of the alternative models and the ethics they entail. Pedro Lain Entralgo has written most perceptively about the history of the patient–physician relationship.<sup>24,25</sup> He summarizes the relationship in terms of the physician’s motives under four general headings: (1) physician as technical helper; (2) physician as seeker of knowledge; (3) physician as functionary of an institution; and (4) physician as a seeker of profit.<sup>24</sup> Elements of these motives are intermingled in each of the more specific models to be examined below.

#### **The Physician as Clinical Scientist**

One prominent model, often emphasized in medical schools, is the patient–physician relationship as an exercise in applied biology.<sup>26</sup> In this model, the relationship is a means for attaining knowledge and also for applying existing knowledge to solve a patient’s diagnostic or therapeutic problem. The ethic governing this kind of relationship is the ethic of good science, the rules of which are objectivity, honesty in recording data, technical competence, and so forth. The patient is the object of study seen as a concrete instance of the universal laws of biology and pathology. This model does not deny the existence or importance of psychosocial and personal elements in the genesis or treatment of the illness. But these elements are not considered properly as in the domain of medicine or the physician. They belong to social workers, psychologists, and pastoral counselors. It is the physician’s task to take note of these subjective elements but to refer them to others for treatment.

#### **The Physician as Body Mechanic**

A variant of this model of the physician as clinical scientist is to see the patient–physician relation-

ship as a mechanical event equivalent to the owner of a defective automobile bringing it in for repair or replacement of a part.<sup>27</sup> In this model, the physician is the mechanic and the patient is the owner of a part to be fixed. Psychosocial and personal elements are really irrelevant. Because they are not mechanically fixable, they are not part of the physician’s task. The ethic of this relationship is the ethic of technical competence, impersonality, and fulfillment of a service contract.

#### **The Physician as Businessman**

In the business model, healthcare is a commodity to be bought and sold on the open market for profit.<sup>28</sup> Its price, availability, distribution, and quality are dependent upon competition. The patient is a consumer who shops for care as he shops for other needed goods. The patient is a source of gain for the physician who competes for patient “business.” The ethic in this model is the ethic of business and the “ethic” of the marketplace. In the market, patients are players whose welfare depends upon what they can command in the way of resources and what they can negotiate in trade. Solicitude or concern for the “loser” is important only if it makes for better business. If someone makes a wrong choice, or lacks the wherewithal to enter the market in the first place, this is unfortunate but not the concern of the physician, or those for whom the physician works.

Two variants of the market relationship model are the entrepreneur and the managed care models.<sup>29,30</sup> These roles may be combined when physicians are simultaneously caregivers, “providers,” and investors, owners, or risk-sharers in managed care organizations or healthcare facilities. Here providers compete for capitation contracts to provide care for large target populations, preferably those with few medical needs who will pay their premiums and will not need much in the way of care. The physician is an employee of an organization or one of its owners. The dominant ethic is the ethic of competitive business and corporations. This is a minimalist ethic always at risk of compromise if profit margins drop. The patient becomes a cus-

tomers and clients, a source of gain, or a unit of care—an “insured life” who can be “traded” in mergers or contract negotiations.

In these technical and market models, the physician regards the practice of medicine primarily as an occupation, a way to make a living rather than a means of service to others. Practicing medicine is a job like any other. There is no requirement to extend oneself beyond the job description. The ethic implicit on this kind of relationship is the ethic of the employee whose aim is to satisfy the patient so the patient will return and will recommend the physician to others. Only as much kindness and compassion as are needed for success need be offered. There is no commitment beyond strict working hours. Choice of physician is not important because physicians are interchangeable. The patient often is seen not as a personal responsibility of the physician, but of the organization.

### **The Physician as Social Servant**

Another model increasingly being pressed upon today’s profession is the physician as social servant, as primarily an instrument of societal, or fiscal,

good. Medical knowledge is thus directed to some purpose beyond, in addition to, or along with, meeting the needs of the individual patients. Examples of this genre are the physician acting as rationer in a managed care system, physicians as employees of a penal institution, physicians in military service, and public health physicians. The physician’s primary orientation is toward the good of the population in general, or a specific population in a social institution. The ethic implicit in this model is a population-based ethic. These are the roles of the physician as bureaucrat or functionary using medical knowledge for purposes other than the good of the individual patient.

### **The Physician as Helper and Healer**

The most traditional model, and ethically the most demanding, is the model of the physician as helper and healer, a committed professional whose primary obligation is to the good of his patient.<sup>31</sup> In this model, the physician is committed to something other than self-interest, advancement of career or occupation, or even the good of society. This model is based ethically in the specificity of the role of

**TABLE 1-1**  
**MODELS OF THE PATIENT–PHYSICIAN RELATIONSHIP**

MODEL	PHYSICIAN	PATIENT	ETHIC
Applied biology	Clinical scientist: uses knowledge to solve medical problems	Biological object harboring a disease	Good science, truth, objectivity, technical competence
Body repair	Body mechanic: fixes biological problems	Owner of defective body part	Technical competence, fulfillment of service contract
Commodity transaction	Businessman: competes for clients	Consumer of medicine and source of gain for the physician	Business, the laws of the marketplace
Investment opportunity	Businessman: views self as an entrepreneur	Unit of care, which can be sold or traded by contract	Competitive business, marketplace concerns, profit margins
Managed care industry	Businessman: functions as an employee	Client whose consumption of care must be controlled	Corporate goals, economic concerns
Social utility	Social servant: uses medicine as instrument of societal good	Client who is a societal subunit	Population-based needs of the many versus the individual
Professional	Helper, healer: uses medicine for the patient’s benefit	Person to be helped	Covenant of trust

physician as healer, helper, and curer. This ideal is not always actualized to be sure, but it has been at the heart of the Hippocratic ethic and its many variations. It is the model that this chapter proposes as the foundation for the ethics of the healing professions.

### Summary of the Models

Table 1-1 lists the models of patient–physician relationship that we have discussed in this chapter. These are models that are now in vogue and often competing for primacy. Each implies a different theory of medicine, a different interpersonal relationship between physician and patient, and a dif-

ferent ethic. In each of these models, except the healing model, the physician uses medical knowledge for what can be a good or bad purpose. These other purposes are not intrinsically evil, but neither are they distinctive of medicine because medicine is defined by its healing purpose. When purposes extrinsic to medicine, itself, conflict with the end of a healing relationship, ethical dilemmas arise in which priority must be given to patient welfare.<sup>32</sup> The nature of these conflicts (eg, the physician as military officer, public health official, or forensic psychiatrist) will be treated in other chapters. This chapter focuses on the “end” of medicine as medicine, on what distinguishes it as a special kind of human activity with its own internal morality.

## HEALING AND HELPING: THE “END” OF MEDICINE

Medicine and physicians are a part of the social and historical fabric of the cultures within which they live and function. Medicine therefore is in part economics, business, societal purpose, and function. But it is not primarily any of these things. If a true foundation for medical ethics is to be found, it must be sought in what is unique to medicine, and this is the healing relationship between the patient and the physician. It is from this uniqueness that an ethic specific to medicine can be defined. The ethical implications of this uniqueness may be derived *externally*, by some form of social construction, or by applying some preexisting system of morals and ethics to the phenomena of medicine. Alternatively, the ethics of medicine may be derived *internally*, by a study of the phenomena of medicine itself. We will examine both approaches methodologically and substantively.

### External Morality

An *externally* determined ethic is most often derived from a preexisting system of moral philosophy with origins outside medicine but applied to the activities peculiar to medicine. This is generally a “top-down” approach in which medical ethics draws upon principles, duties, or rules and action guidelines developed outside medicine to define morally appropriate conduct, or choices. Some examples are the derivation of duties of physicians and patients from the deontological ethic and categorical imperative of Immanuel Kant,<sup>33</sup> the principle of utility maximization of John Stuart Mill,<sup>34</sup> natural virtue ethics of Aristotle,<sup>35</sup> or the Christian virtues as exemplified in Thomas Aquinas.<sup>36</sup> Simi-

larly, an external source of medical ethics might be drawn from a religious tradition, as in the theological ethics of Thomas Aquinas, the Catholic casuist tradition,<sup>37</sup> or an updated conception of natural law,<sup>38</sup> the Protestant tradition,<sup>39</sup> or the Jewish halakic tradition.<sup>40,41</sup>

In recent years, systems of externally derived ethics have had their origins in sociocultural mores, in social constructivism, or coherence theories. Here the justification for judgments of right and wrong are determined by societal consensus, or coherence with other accepted beliefs and principles, or by “reflective equilibrium,” a dialogue between general principles and intuitive judgments.<sup>42</sup> Existential,<sup>43</sup> narrative,<sup>44</sup> caring,<sup>45</sup> and feminist ethics<sup>46</sup> are further examples of external systems for the derivation of right and wrong. These and other ethical theories have been applied to medicine to justify what ought and ought not to be done in particular clinical situations.

The foregoing “external” sources of medical ethics are formulated in other chapters in this book and will not be given further consideration here. In any contemporary study of medical ethics, they deserve serious consideration. They express moral truths of various relevance to, but not necessarily determinative of, right and good conduct for physicians and other health workers. They relate to, but are not determined in the first instance by, the nature of medicine as a special kind of human activity. In one way or another, they leave a gap between ethical theory and the realities of the moral world of physician and patient. To close this gap, it is necessary to move more closely into the lived worlds of physician and patient—to a more internally determined ethic.<sup>47</sup>

## The Ethics Internal to Medicine

There are several senses in which an ethic may be *internal* to medicine. One is the ethic expressed in ethical codes elaborated within the profession by physicians, for physicians. Examples would be the Hippocratic Oath,<sup>9(pp299–301)</sup> the ethics of the Chinese physician,<sup>48</sup> the Indian Code,<sup>49</sup> the ethical “code” of Thomas Percival prepared for the physicians at the Manchester Infirmary,<sup>50</sup> the AMA Code of 1847, its many revisions since then, and their expansion in the Opinions of the Council on Ethical and Judicial Affairs of the AMA.<sup>11</sup> The ethical codes of the World Health Association, the British Medical Association, and a multitude of others would all be internal in this sense. These codes were prepared for, and by, members of the profession without significant input from those outside the profession.

These internal codes generally turn out to be statements of moral belief mixed with etiquette. They exhibit little in the way of formal “ethics,” because their moral foundations are taken for granted and not derived or justified by analysis or argument. Their moral content is surprisingly similar to that expressed in the Hippocratic Oath and ethic. These codes all express certain moral truths that have shaped the ideals of professional behavior and the commitment of the community of physicians to patient welfare. They should not be discounted, as some suggest, simply because they were prepared *by* physicians and *for* physicians.<sup>51</sup> Their final test is not who composed them, but whether or not they contain arguable or demonstrable ethical truths.

Laws pertaining to medical practice are external to the internal morality of medicine. Laws are *external* because they promulgate statutes governing the obligations of physicians to patients, the source of which is legislative action outside of medicine. Nonetheless laws are responsive to the special nature of the medical relationship. The laws of torts, contracts, and fiduciaries, for example, recognize the special nature of the patient–physician relationship. In this latter sense, these laws accurately reflect the special nature of the therapeutic relationship and the vulnerability of patients who, as a result, are in need of legal protection. Laws governing medical practice, thus, get their moral force from their recognition of the realities of the patient–physician encounter.

Also situated somewhere between the internal and external boundaries of medicine are theories

of ethics or models of the relationship with strong sociological and psychological foundations. One example would be Lain Entralgo’s formulation of friendship (*philia*) as the foundation of the relationship.<sup>24(p149)</sup> Other examples would be the notion of caring, the patient’s or physician’s life story or narrative, or the experience of practice itself. Each concept has roots in the actualities of the patient–physician relationship; none is sufficient in itself to be the basis of a normative ethic for that relationship. Each is important but best incorporated in the view of a healing ethic.

## Elements of an Internal Morality for Medicine

For purposes of this chapter, the term *internal morality* will be used more narrowly to signify a foundation for medical morality arising within the phenomena peculiar to medicine, those that define it as a special form of human activity, and by that fact generate specific moral responsibilities binding only on those who profess medicine or the other health professions. The three phenomena specific for the patient–physician relationship are: (1) the fact of illness; (2) the act of pro-fession; and (3) the act of medicine. Together they comprise the healing relationship, the end of which is the good of the patient.

### The Fact of Illness

The most fundamental fact about medicine is that it exists because humans become ill. This and mortality are the two most universal characteristics of human existence. They transcend culture, history, and all other differences between and among humans. Illness is a subjective existential state in which the patient’s sense of well-being or accommodation with existing disease is threatened or compromised by some new symptom or sign. The person who recognizes himself as ill enters a new stage of existence in which his humanity is diminished in several specific ways.

First, there is the loss of freedom to do what one wishes because of pain, disability, discomfort, and so forth. Being ill creates anxiety, fear of mortality, and disability. Illness may or may not correspond to objective pathology (ie, disease). Illness threatens the image of one’s physical and emotional integrity. The illness then becomes a center of concern and diverts energy and attention from other pursuits. It creates a disorganization and disequilibrium of the whole of the person’s existence.



Ill persons may tolerate this state of disequilibrium for a long time but ultimately most decide they need help. That is when they become *patients*—persons bearing a burden of suffering. (The word “patient” is derived from the Latin *pator, patiens, pati* meaning “to suffer, bear a burden.”<sup>52</sup>[pp1308–1309]) When people become patients, they realize they need the knowledge and power of others to be healed. Patients then no longer treat themselves but are compelled to seek out a health professional in whom eventually they must place trust. They must enter a relationship of inequality because the health professional possesses the knowledge and skill the patient needs. Thus when well persons become ill, by that very fact, they become patients—vulnerable, suggestible, and exploitable. They experience a change in existential state that is not exactly parallel to any other state. Illness is a unique universal phenomenon of human existence and it is that uniqueness that generates its moral orientation.

### *The Act of Pro-Fession and Promise*

In this special state of vulnerability, the patient seeks out someone who professes to be a healer. The physician or other health professional asks what is wrong: “How can I help?” In this question, physicians invite the patient’s trust that they possess the requisite knowledge, that they will use it to help and not to harm (ie, to act in the patient’s best interests, not their own, and not in the interests of others). When physicians voluntarily offer to help, they make an implicit promise. They offer themselves as healers, helpers, and caregivers. They generate expectations they promise implicitly to fulfill. They voluntarily bind themselves, by that very fact, to act beneficently. Their assigned societal role and their possession of special knowledge require them to help. Physicians thus automatically enter into a covenantal trust relationship when they offer to care for a patient. A covenant is more than a casual promise. It is a mutual agreement with something of the sacred about it because it is made in the presence of need by one capable of meeting that need.

This promise to help is an act of pro-fession (“pro-fession” derives from the Latin *profiteor, profiteri* meaning “to acknowledge openly, to avow,” and *professio*, “an open declaration of an intention”<sup>52</sup>[pp1475–1476]), that is to say, it is a solemn promise that binds *this* physician to *this* patient in a way that makes the physician an accomplice if harm comes from the relationship. The patient may dissolve this bond unilaterally by discharging the physician. But if the patient is ill, the physician can end the relationship only af-

ter another physician has agreed to undertake the patient’s care.

### *The Act and End of Medicine*

It is the act of healing, helping, and curing (which is what the patient seeks, needs, and expects from the physician’s promise of help and the physician’s invitation to trust) that initiated the relationship. Help, healing, care, or cure are the immediate ends of medicine. To be authentic, this end must be defined in terms of the good of the patient, that which restores health, if that is possible, or provides comfort and care if restoration of health is not possible. The *good* of the patient is a complex concept, multi-layered and highly personalized. It consists of at least four components: (1) the medical good, (2) the good as perceived by the patient, (3) the good of the patient as a human, and (4) the good of the patient’s spiritual nature.<sup>53</sup>

The first (and lowest on the scale) component is the medical good—that which the competent application of medical knowledge can achieve—treatment, cure, comfort, or containment of the disease. This is the most objective level susceptible to scientific apprehension. It is the level at which diagnosis, prognosis, and therapy function.

The second component of the patient’s good is the good as perceived by the patient—what constitutes a “quality” life, the trade-offs the patient may wish to make among the options for treatment, the amount of risk, pain, discomfort, and disability that will be accepted as a price of treatment. The patient’s perception of good is subjective, individualized, and personalized. It may or may not correspond with the medical good as perceived by the physician. It can only be defined by the patient.

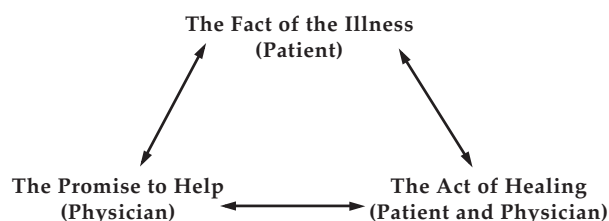
The third component of patient good is more general. It is the good of the patient as a human being, as a being with inherent dignity possessed of reason and will, free to choose, to plan one’s own life with a minimum of coercion by others or by events. It is this inherent dignity that entitles all humans to respect for their own decisions and it is from this good for humans that the principle of autonomy derives. Justice, likewise, is grounded in who and what we are, as possessors of a common humanity. Justice requires equal treatment of patients and retribution for harm done to them. Keeping promises, such as the physician’s promise of healing and helping, is also a matter of justice—something owed to all persons.

The fourth component, and the highest good of the patient, is whatever pertains to that individual’s

spiritual nature—beliefs about the nature and destiny of human life, its meanings, purposes, and relationships to sources of morality beyond human determination. This good is also grounded in our humanity as beings capable of commitments to ideals and beliefs beyond the needs of our material bodies. This is the realm of religious belief, or nonbelief, the ultimate source of morality for most patients when confronted with their own finitude, suffering, or despair. It is also the ultimate source of morality for many physicians.

The immediate telos, or end, of medicine is to advance the good of a particular patient on all of these four levels. This is what healing means, that is, to help the patient heal himself, to become whole again to the extent possible within the limitations imposed by the patho- or psychophysiological aberration that brought him to the physician in the first place. To achieve this end will require in the immediate term a *right* and *good* decision, one which is scientifically and technically correct, and one which conforms with the four levels of good as they present in *this* patient. Morally valid medical and clinical decisions therefore fuse the technical and the moral dimensions in the moment of clinical decision. It is through the immediate end of a right and good decision made with, and for, the patient that the broader end of healing, and ultimately, the even broader ends of health of the individual and of society are attained.

A right and good decision must also be carried out safely, efficiently, prudently, and with a minimum of pain and discomfort. These obligations arise out of the seriousness of the promise to protect and advance the well-being of the patient. The vulnerability of the patient, and the trust patients must ultimately place in the physician's skill, are the foundation for the obligation to be competent in performance as well as in knowledge. Competence in psychomotor skills is, therefore, a moral requirement. Thus the internal morality of medicine rests on the relationships of three phenomena that characterize the clinical encounter: the fact of illness, the promise to help, and the healing act of medicine. Schematically, they can be represented in this way:



These are the ineradicable phenomena of the human experiences of being ill, being healed, and professing to heal. They are universal human phenomena. No matter which culture, historical era, or national boundaries frame them, they are the same. They are the same phenomena experienced by ancient Greek patients and their physicians as well as today's patients and physicians. They will be the same in the next millennium and beyond because they are elements of the human condition. Medicine will become more highly technical than it is now, and more will be done by computers and automated means of diagnosis and treatment, but the need of sick persons for human interaction, intercession, and counsel will remain. Indeed, as machines take over the procedures of medicine, the need for the human touch and the ethical dimension of clinical decisions will be correspondingly greater.

## The Clinical Encounter

### Principles and Duties

Up to this point I have distinguished *external* morality, as any system of ethics derived from outside of medicine (like the ethics of Aristotle, Kant, Hume, and Beauchamp and Childress), from *internal* morality, the derivation of duties, obligations, and principles from the phenomenology of medicine itself. However, the internal morality of medicine is not disconnected from the specific principles, rules, guidelines, and virtues that characterize external systems of morality applied to medicine. The difference in an internal morality is that they are derived from the empirical phenomena of the clinical encounter. They are, therefore, not dependent upon preexisting ethical theory or the resolution of disagreements between and among these theories.

The four principles of Beauchamp and Childress<sup>54</sup> (ie, beneficence, nonmaleficence, autonomy, and justice) are one example of an external theory of medical morality that can be grounded more securely in the empirical realities of the clinical encounter. These principles have a firm foundation because they are necessary to achieve the end of medicine and fulfill the covenant of trust. Thus beneficence and nonmaleficence become duties because they are promised when the physician offers to help in the way specific to his profession. They are *prima facie* principles because no patient seeks professional help to be harmed; patients seek to be helped. No one expects to be used to advance the physician's or someone else's good. Subjects in clini-

cal research may give free and informed consent to participation to advance the good of others but even the experimental subject's good must always be protected.

Autonomy, as argued above, is a good of the patient as a human being. It is one of the distinguishing characteristics of being human that we can make plans, make choices, and control significant parts of our lives. To ignore, override, or manipulate this decision-making capacity is to violate the good of the patient, to create harm and thus to defeat the end of medicine, which is healing and not harming. To violate autonomy is thus a maleficent act. Beneficence, nonmaleficence, and autonomy are not in opposition but reinforce each other. Autonomy is not absolute, however. The conditions that restrict are subjects for other chapters.

Justice, like autonomy, is a good of the patient as a human being. To violate justice is to violate an essential feature of human existence (ie, what is owed to each human simply by virtue of being human). Like violations of beneficence and autonomy, violations of justice are maleficent and, therefore, frustrations of the end of medicine, which is the good of patients.

### *The Virtuous Physician*

Like the *prima facie* principles of medical ethics, the virtues physicians should exhibit are linked to the ends of medicine and the phenomena that characterize the healing relationship. Virtues in general are defined as "the state of character which makes a man good and which makes him do his own work well."<sup>55(1106a:22–24)</sup> When the concept of virtue is incorporated into medical ethics, it refers more specifically to those traits of character that make a physician or nurse (or other health worker) a *good* physician or nurse—one whose intention and action optimizes attainment of the ends of the healing relationship.<sup>56</sup>

Essential to the notion of a virtue from its earliest definition in Plato and Aristotle is the idea of perfection (*areté*) in achieving a purpose. The virtuous physician or nurse is one who exhibits excellence in those character traits that enable one to come as close as possible to the healing purposes of the patient–physician (or patient–nurse) relationship. There are certain virtues or character traits that are particularly crucial; indeed, so crucial that they are entailed by the ends of medicine and without them those ends cannot be achieved. Some of these virtues are as follows<sup>57</sup>:

- *Fidelity* to trust is inescapable in the real world of a sick person seeking help. Without trust in the good intention of the physician and the physician's capability to perform competently, healing becomes difficult or impossible. The physician invites trust and must therefore be faithful to that trust, lest the offer to help be a lie and a deception.
- *Benevolence*, namely the predisposition habitually to wish to act for the patient's good, is the virtue that disposes the physician to do good, specifically to do good *for* the patient. This disposition is present even when it costs the physician something in time, frustration, loss of income, interference with personal plans, and so forth. Benevolence is a requisite virtue even in those difficult and frustrating cases of patient non-compliance, or abuse of health practices, or nonpayment of legitimate bills for service.
- Benevolence entails another virtue, namely *effacement of self-interest*. This is the disposition to serve the good of the patient even at some loss of personal self-interest. This virtue has limits. But where those limits are set is a highly personal matter. Heroic sacrifice is not required, but some degree of self-effacement is essential to attaining the ends of medicine. Without it a professional loses that which distinguishes his work from a mere occupation.
- *Compassion and caring* are equally relevant virtues. Compassion as a virtue is the habitual disposition to enter into the predicament of the sick person, to feel something of that predicament with him, and, as a result, to wish to help. Without entering the patient's predicament to some extent, it is not possible to heal in any full sense of that term. Care is a virtue closely related to the virtue of compassion. It may mean caring for the patient, that is, taking a personal interest in the patient's fate, or taking care in the way we carry out our professional duties, or taking care of the patient's need and concerns. However interpreted, caring is an essential virtue integral to any morally satisfactory healing relationship. It is not, however, sufficient by itself to constitute a normative theory of ethics.
- Both care and compassion must be combined with *objectivity* if they are not to be harmful. Objectivity allows for an assess-



ment of the actual physical state, diagnosis, and prognosis. It is united with compassion by putting all the factual data into the lived world, life situation of *this* patient. Objectivity and compassion complement and balance each other.

- *Courage* is one of the four cardinal virtues from antiquity (the other three being temperance, justice, and prudence). It disposes physicians to take the personal risks necessary to care for the sick in times of emergency, disaster, or war; to expose oneself to contagion when necessary; and to take a moral stand when cooperation with what is morally wrong must be resisted.
- *Intellectual honesty* is a virtue insufficiently emphasized. Medicine and medical knowledge are powerful tools. They can be used for good and harm, or for control over others. Recognizing what one does not know, admitting it to oneself, to the patient, and to one's colleagues, is an essential safeguard for the vulnerable patient. Intellectual honesty is the antidote to the vice of intellectual hubris to which all professionals, and especially physicians, are so easily prone.
- In addition to intellectual honesty, a more general disposition to *humility* is required. This lies in a sober appreciation of the limitation of medicine as art and science, and of the physician, himself as an instrument of the patient's healing. It is an awesome thing to offer oneself to help or "heal" another. Merely to contemplate the demands on the health professional's knowledge, compassion, and understanding of the predicament of illness is to impart a sense of unworthiness on any responsible professional. Nonetheless, it is through fallible human beings that the knowledge and skill of medicine must be employed if the sick are to be helped. Physicians and other health professionals cannot permit themselves to be overwhelmed by their importance, nor by their sense of impotence and inadequacy. What humility requires is a calm and moderate assessment of the dangers of both indecision and presumption. A knowledge of the limitations of one's own person and of the art, itself, is gained only by careful, sustained, lifelong self-examination of the potential for good and harm in arrogating to oneself the title of "physician,"

"nurse," "psychologist," "social worker," and so forth.

- *Finally, and one of the most important of the clinical virtues, is prudence.* This is not the modern exercise of self-protective caution, which avoids risks to one's own welfare and does not venture to do good if it means a loss of self-interest. Phronesis, the Greek word for prudent judgment or practical wisdom, was, for Aristotle and Aquinas, the link between the intellectual (the capacity to know) and the moral virtues (the capacity to act well).<sup>55(1144b30–1145a6),58,59</sup> It encompassed the capacity of practical wisdom, knowing how to choose the appropriate means in a complicated situation so as best to serve the good ends of the healing relationship. Prudence is the power of discernment. In the clinical context it is akin to clinical judgment—knowing how, when, and in what way, to act in the face of uncertainty, in a situation we have never encountered before, or one in which the virtues themselves appear in conflict.

Obviously, there are other character traits that can be entailed by the realities and ends of the patient–physician relationship but these just listed are indispensable. In their absence it would be difficult or impossible to assure a healing relationship that met minimum standards of ethical propriety.

Virtues do not by themselves constitute a whole moral philosophy for medicine.<sup>60</sup> They lack the specificity and concreteness of principles, rules, and axioms as action guidelines. Virtues also are subject to a multiplicity of definitions and orderings. They may conflict with each other because they are tied to the definition of the patient's good, and there may be differences about how to define that good for, and with, a particular patient. The tendency to subjectivism is accentuated by the circularity of the logic that ordinarily accompanies virtue theories, that is, virtuous persons do what is good; the good is what virtuous persons do. However, by grounding the virtues in the empirical realities of the patient–physician relationship we can avoid some of this circularity and most of the shortcomings of virtue theory in general.

### *The Virtuous Patient*

The ethics of any human relationship implies reciprocal duties, principles, and virtues. In medical

ethics, it is the duties of physicians that are emphasized. Given the balance of power in the physician's favor and the vulnerability of the patient, this is the morally proper ordering. Nonetheless, some mention of the patient's obligations and virtues is necessary if a full account of the internal morality of the healing relationship is to be provided.

If the end of medicine is to be attained, patients must participate in their own healing, and must facilitate the physician's pursuit of this end. This requires, at a minimum, that patients must be honest in the facts they provide in their histories of their illness. They must not withhold, misrepresent, or manipulate the facts for some ulterior motive. Patients should also cooperate in carrying out the treatment plan by following directions and reporting changes promptly. Without this minimal cooperation, the physician cannot fulfill his moral obligation to attain the healing ends of medicine.

People, in addition, have responsibilities to preserve health even before they become patients. Smoking, dietary and alcohol excesses, sedentary habits, failure to receive appropriate vaccinations, and similar behaviors thwart the "end" of medicine. Moderation (or temperance as it is sometimes called), another of the ancient cardinal virtues, is a requisite virtue on the part of patients if health is to be maintained and the effects of disease are to be mitigated or prevented.

Failures on the patient's part are, however, not ipso facto a warrant for refusing to treat the patient who does become ill by failing to follow the physician's advice or because of poor health behavior. Physicians are not judges of the patient's virtue and are not empowered to punish patients by withholding their ministrations.

Patient autonomy is not absolute, however. The good of the physician as a human being entitles him to respect for his autonomy as well as the patient. Thus, if a patient requests a treatment that is futile, violates the canons of rational medicine or the religious beliefs of the physician, or poses a definable, grave, and probable harm to an identifiable third person, the physician is obliged to refuse. The physician, unless discharged by the patient, may withdraw from care of a sick person only when another physician whose values are more congruent with the patient's is willing to assume care. Until that time, the physician must care for the patient but must also do so in accord with his own conscience. The physician is a moral agent and as such must take responsibility for his actions.

When no emergency is present, physicians may refuse to care for a patient who threatens physical

harm to others, consistently violates the physician's instructions, or endangers the life of the physician. Examples would be the violent drug addict, the sociopath, or the psychotic paranoid patient who threatens the physician or the physician's staff. Withdrawal can also be justified when the patient's repeated behavior makes achievement of the ends or purposes of medicine totally impossible. This decision must be taken with caution, without vindictiveness, and with a readiness to help again if the patient changes this behavior or presents in an emergency seeking assistance.

Another reciprocal duty of patients is to recognize their own finitude. There is a point in the natural history of any serious illness at which it becomes futile to continue, or to add, treatments. Hippocrates recognized this patient obligation when he said that patients should not expect medicine to cure them when they are overmastered by the disease.<sup>61</sup> This can now be stated as a principle: There is no obligation to treat when treatment is futile (in other words, ineffective, nonbeneficial, or overly burdensome in relation to benefit or effect). This is an obligation too often ignored by patients and families who demand that *everything* be done even when death is inevitable, the patient is in a permanent vegetative state, and further treatment is without value, or when the burdens outweigh the benefits. Physicians and patients have mutual obligations to recognize when treatment is no longer effective or beneficial. Together they should then decide to desist from treatment.

## **Medical Ethics and Social Responsibility**

This chapter has focused on the individual patient-physician relationship. Other chapters will deal with institutional and social roles. However, it is important to indicate that this emphasis on the *internal* morality of medicine does not preclude, nor excuse, physicians from societal obligations. The physician is a steward of medical knowledge who has been allowed certain privileges by society in the course of caring for sick persons. These privileges include hearing confidential information, seeing and touching patient bodies (sometimes in very intimate ways), as well as performing surgical procedures and using controlled substances to alleviate suffering. Acceptance of the privileges of a medical education and possession of medical knowledge generates obligations to make them available for the betterment of society. Medical students enter into a similar covenant with society when they accept the privileges of a medical education. These privileges

include the right to dissect human tissue, to participate in the care of patients as a student or resident, and to learn to carry out medical procedures. These privileges are sanctioned by society so that a continuous supply of medically trained personnel can be assured for society.

Ethical issues arise when the physician is forced to choose between the good of an individual patient and the needs of the society. Specific conflicts of this kind as they occur in the military service and in battle conditions constitute a large part of this textbook and will not be covered here. Suffice it to say that except in the most extreme exigencies, the physician remains a physician always. To depart from the internal morality of medicine is to repudiate what it is to be a physician. Persons who enter any kind of relationship with a physician expect, and have a right to expect, fidelity to the fundamental ethic of the profession. Any compromise with this expectation for reasons of social or national exigency must be closely scrutinized if medicine and physicians are not to be used as means to political, social, or economic purposes not their own.

Managed care is becoming a paradigm case of this issue. Physicians in managed care are urged to become *gatekeepers*, to act as agents to conserve society's resources, and to take the needs of other patients into account in deciding who gets what care, and how much. Presumably physicians are expected to deny needed care so that those more needful may have access to that care (eg, to pay for child health, to extend coverage to the uninsured), or to cut costs and yield profits for investors.

On the covenant model of medical ethics detailed in this chapter, physicians should not act as gatekeepers. If there must be rationing, then it should be *explicit* rationing, that is, rationing through decisions on benefits made societally but not by individual physicians in individual cases. All patients need to know the limitations society places on their care. With explicit rationing physicians can still serve the patient's interest within the confines of externally imposed limitations. But with explicit as with implicit rationing, the physician must reserve the right to refuse to obey a social policy if it is harmful to his patient.

Physicians should make a societal contribution to cost containment. First, they must practice the most rational medicine, providing only what is effective, beneficial, and not excessively burdensome. When two treatments are equally effective, the less expensive should be chosen. Another way to contribute to societal welfare is to provide expert testi-

mony to policy makers so that benefit packages can be based on effectiveness and benefit, not cost. A third way is to act together as a profession for the welfare of the sick, especially for the underprivileged, the poor, the disabled, and the elderly who do not fare well in market and competition-driven managed care plans. Finally, as a citizen, the physician has a duty to be informed of public policy, and to foster the welfare of the sick through lobbying for appropriate public policy. There will be times in managed care organizations when the pressure on physicians to serve interests other than those of their patients will so damage the trust relationship that virtuous physicians have a duty to refuse.

### **Medical Ethics, Culture, and History**

Some may object that in a culturally pluralistic world like ours, the idea of a stable foundation for medical ethics binding on all physicians across national and cultural boundaries is an anachronism. It is true that responses to illness and disease by patients, physicians, and societies may vary widely. People in different times and cultures have different attitudes and behaviors in the presence of pain, suffering, and death. They value human life itself and the lives of the aged, disabled, or unborn in different ways. Their interpretation of the meanings and origins of illness vary, as do their therapeutic endeavors.

The same is true in ethics. The emphasis on autonomy, truth telling, and confidentiality is closely bound to Anglo-American beliefs in individual freedom, privacy, and self-determination.<sup>62,63</sup> In other cultures, decisions may be made by families, tribal chieftains, or by community discussion. Infanticide, abortion, and the rights of women may vary with historical era, ethnicity, or religious belief.

In the minds of some, all of these differences militate against the possibility of a universal ethic of medicine. Medical ethics, they would say, is whatever we make it to be. It can be socially constructed differently in different societies and times. What is morally right for one may be wrong for another. Pluralism is a fact and it is anachronistic to seek a common foundation even for medical ethics. This is the thrust of antifoundationalism, the trend of so-called postmodern philosophy and ethics that denies the possibility of any stable set of moral precepts.

In medicine, at least, antifoundationalism flies in the face of the human experience of illness, which is common across cultures and time. The phenomena do not change. They are common to humans

whether they lived in ancient Greece, live in the United States today, or will live in a space station in the future. A broken leg, a crushing chest pain, spitting blood, or chills and fever induce anxiety, fear, distress, vulnerability, and a need and call for help. The Hippocratic physician, today's internist, tomorrow's flight surgeon on a space station, or the shaman in a distant era or country, each confronts a human in need of help. The methods may differ, but the end of medicine is the same in each case: healing, helping, relieving pain and anxiety, and curing when possible. These phenomena of being ill, being healed, and healing, itself, transcend time and culture. They ground the ethics of the patient-physician relationship in universal human experiences even though cultural and historical settings may differ.

### A Common Ethics for the Health Professions

This chapter has concentrated on the ethics of the profession of medicine. Only analogically has it touched the ethics of the other health professions such as nursing, dentistry, medical social work, clinical psychology, pharmacy, and allied health. Each of these clinical professions confronts human beings in the state of illness; each deals with the

same fundamental phenomena of illness and healing. The same virtues, principles, and duties that bind the physician bind these other clinicians in their clinical encounters with sick persons seeking help.

The common foundation for the ethics of the health professions is the empirical reality of the human relationship between patients and health professionals—the *internal* morality described above. This common ground of empirical fact speaks for a common ethic of the clinical healing relationship. To be sure, upon this common base there will be certain additional obligations specific to each profession, and expressed in their different codes of professional ethics. But a common thread runs through all these codes. The ethics of the healing relationship is, in the end, the general ethic of the health professions. Its foundation will be the same for physicians, nurses, dentists, social workers, psychologists, allied health professionals, and healthcare administrators. That foundation will be, as always, the varied phenomena of the human encounter between one human in distress seeking help from another who professes willingness to help, possesses the technical and moral skill to do so, and promises to use them for the good of the person seeking help.

### CONCLUSION

In the chapters immediately following this one, the rich theoretical foundation for the patient-physician relationship will be explored, with a particular focus on the clinical setting. Then, using the tools of research methodology, we will explore the many overall influences on the patient-physician relationship.

This chapter opened by noting that medical ethics begins and ends in the patient-physician relationship, whether that is in a civilian or military setting. Thus the point was made that in many respects military physicians do not differ from their civilian medical counterparts. The military physician, as a physician, is distinguished from other

military personnel by his engagement in a special kind of human relationship that, of its nature, demands a certain level of moral commitment. That commitment must be the determinant of the physician's conduct even in the extraordinary circumstances of national defense and war. The extent to which these exigencies may shape those moral commitments is explored in the many other chapters in this work on the subject of military medical ethics. What is inescapable is the fact that the physician cannot avoid complicity if harm comes to his or her patient. The good of the patient is, as always, the gold standard of moral propriety.

### REFERENCES

1. Shorter E. History of the doctor-patient relationship. In: Bynum WF, Porter R, eds. *Companion Encyclopedia of the History of Medicine*. Vol 2. London: Routledge; 1993: 783-800.
2. Edelstein L. The Hippocratic physician. In: Temkin O, Temkin CL, eds. Temkin CL, trans. *Ancient Medicine: Selected Papers of Ludwig Edelstein*. Baltimore, Md: Johns Hopkins University Press; 1967: 87-110.
3. Carrick P. *Medical Ethics in Antiquity: Philosophical Perspectives on Abortion and Euthanasia*. Dordrecht & Boston: D Reidel; 1985: 69-94.



4. Baker R. History of medical ethics. In: Bynum WF, Porter R, eds. *Companion Encyclopedia of the History of Medicine*. Vol 2. London: Routledge; 1993: 852–887.
5. Temkin O. *Hippocrates in a World of Pagans and Christians*. Baltimore, Md: Johns Hopkins University Press; 1991.
6. Amundsen DW. *Medicine, Society, and Faith in the Ancient and Medieval Worlds*. Baltimore, Md: Johns Hopkins University Press; 1996.
7. Kottek SS, Leibowitz JO, Richler B. A Hebrew paraphrase of the Hippocratic Oath (from a fifteenth century manuscript). *Med Hist*. 1978;22(4):438–445.
8. Bulger RJ, ed. *Hippocrates Revisited: A Search for Meaning*. New York: Medcom Press; 1973.
9. Hippocrates. In: *Hippocrates*. Vol 1. Jones WHS, trans-ed. Cambridge, Mass: Loeb Classical Library/Harvard University Press; 1972: 299–301, 313–333.
10. Hippocrates. In: *Hippocrates*. Vol 2. Jones WHS, trans-ed. Cambridge, Mass: Loeb Classical Library/Harvard University Press; 1972: 263–265, 279–301, 311–313.
11. American Medical Association. Council on Ethical and Judicial Affairs. *Code of Medical Ethics, Current Opinions With Annotations*. 1996–1997 ed. Chicago: American Medical Association; 1997.
12. Crawshaw R, Rogers DE, Pellegrino ED, et al. Patient–physician covenant. *JAMA*. 1995;273(19):1553.
13. Kevorkian J. *Prescription-Medicide: The Goodness of Planned Death*. Buffalo, NY: Prometheus Books; 1991.
14. Wanzer SH, Federman DD, Adelstein SJ, et al. The physician’s responsibility toward hopelessly ill patients: A second look. *N Engl J Med*. 1989;320(13):844–849.
15. Robin ED, McCauley RF. Cultural lag and the Hippocratic Oath. *Lancet*. 1995;345(8962):1422–1424.
16. Pellegrino ED. Bioethics as an interdisciplinary enterprise: Where does ethics fit in the mosaic of disciplines? In: Carson RA, Burns CR, eds. *Philosophy of Medicine and Bioethics: A Twenty-Year Retrospective and Critical Appraisal*. Dordrecht, Boston, & London: Kluwer; 1997: 1–23.
17. Meilaender GC. *Body, Soul, and Bioethics*. Indianapolis, Ind: University of Notre Dame Press; 1995.
18. Docherty T, ed. *Post Modernism: A Reader*. New York: Columbia University Press; 1993.
19. Rorty R. *Philosophy and the Mirror of Nature*. Princeton, NJ: Princeton University Press; 1979.
20. Rosen S. *The Ancients and the Moderns: Rethinking Modernity*. New Haven, Conn: Yale University Press; 1989.
21. Engelhardt HT Jr. *The Foundations of Bioethics*. 2nd ed. New York: Oxford University Press; 1996.
22. Moreno JD. *Deciding Together: Bioethics and Moral Consensus*. New York: Oxford University Press; 1995.
23. Singer P. *Rethinking Life and Death: The Collapse of Our Traditional Ethics*. New York: St Martin’s Press; 1995.
24. Lain Entralgo P. *Doctor and Patient*. Partridge F, trans. New York: McGraw-Hill; 1969.
25. Lain Entralgo P. *La Relación Médico-Enfermo: Historia y Teoría*. Madrid: Revista del Occidente; 1964.
26. Seldin D. The medical model: Biomedical science as the basis of medicine. In: *Beyond Tomorrow: Trends and Prospects in Medical Science*. New York: Rockefeller University Press; 1977.

27. Bayles MD. Physicians as body mechanics. In: Caplan AL, Engelhardt HT Jr, McCartney JJ, eds. *Concepts of Health and Disease: Interdisciplinary Perspectives*. Reading, Mass: Addison-Wesley, Advanced Book Program, World Science Division; 1981: 665–675.
28. Hall M. The ethics of health care rationing. *Public Aff Q*. 1994;8(1):33–50.
29. Emanuel EJ, Dubler NN. Preserving the physician–patient relationship in the era of managed care. *JAMA*. 1995;273(4):323–329.
30. Engelhardt HT Jr, Rie MA. Morality for the medical-industrial complex: A code of ethics for the mass marketing of health care. *N Engl J Med*. 1988;319(16):1086–1089.
31. Balint M. *The Doctor, His Patient, and the Illness*. New York: International Universities Press; 1964.
32. Pellegrino ED. Societal duty and moral complicity: The physician’s dilemma of divided loyalty. *Int J Law Psychiatry*. 1993;16(3–4):371–391.
33. Kant I. *Groundwork of the Metaphysics of Morals*. Paton HJ, trans. New York: Harper; 1964.
34. Mill JS. *Mill’s Ethical Writings*. Schneewind JB, ed. New York: Collier; 1965.
35. Aristotle. Nicomachean ethics. In: Ross WD, trans; Urmson JO, rev; Barnes J, ed. *The Complete Works of Aristotle: The Revised Oxford Translation*. Vol 2. Princeton, NJ: Princeton University Press; 1984: 1229–1867.
36. Aquinas T. *Summa Theologiae*. Hughes WD, trans-ed. New York: McGraw-Hill & Blackfriars; 1969: 62, 137–149.
37. Jonsen AR, Toulmin SE. *The Abuse of Casuistry: A History of Moral Reasoning*. Berkeley: University of California Press; 1988.
38. Finnis J. *Natural Law and Natural Rights*. Oxford: Clarendon Press; 1980.
39. Gustafson JF. *The Contribution of Theology to Medical Ethics*. Milwaukee, Minn: Marquette; 1975.
40. Jakobovits I. *Jewish Medical Ethics: A Comparative and Historical Study of the Jewish Religious Attitude to Medicine and Its Practice*. New York: Bloch Publishing; 1975.
41. Rosner F, Bleich JD, eds. *Jewish Bioethics*. New York: Hebrew Publishing Co; 1979.
42. Rawls J. *A Theory of Justice*. Cambridge, Mass: Belknap Press of Harvard University Press; 1971.
43. Sartre JP. *Cahiers pour une Morale* [Notebooks for an Ethics]. Paris: Gallimard; 1983.
44. Nussbaum MC. *The Fragility of Goodness: Luck and Ethics in Greek Tragedy and Philosophy*. New York: Cambridge University Press; 1986.
45. Noddings N. *Caring: A Feminine Approach to Ethics and Moral Education*. Berkeley: University of California Press; 1984.
46. Frazier E, Hornsby J, Lovibond S, eds. *Ethics: A Feminist Reader*. Cambridge, Mass: Blackwell; 1992.
47. Pellegrino ED. *The Lived World of Doctor and Patient*. New Haven, Conn: Yale University Press; 2000.
48. Unschuld PU. *Medical Ethics in Imperial China: A Study in Historical Anthropology*. Berkeley: University of California Press; 1979.
49. Caraka Samhita 3.8.13-14 as cited in D Wujastyk. Indian medicine. In: WF Bynum, R Porter, eds. *Companion Encyclopedia of the History of Medicine*. Vol 1. London: Routledge; 1993: 762.

50. Percival T. *Medical Ethics, or A Code of Institutes and Precepts Adapted to the Professional Conduct of Physicians and Surgeons*. Reprinted from the 1803 version. Birmingham, Ala: Classics of Medicine Library; 1985.
51. Veatch RM, Mason CM. Hippocratic versus Judeo-Christian medical ethics: Principles in conflict. *J Religious Ethics*. 1987;15(1):86–105.
52. Glare RGW, ed. *Oxford Latin Dictionary*. Cambridge: Oxford University Press; 1983.
53. Pellegrino ED, Thomasma DC. *For the Patient's Good: The Restoration of Beneficence in Health Care*. New York: Oxford University Press; 1988.
54. Beauchamp TL, Childress JF. *Principles of Biomedical Ethics*. 4th ed. New York: Oxford University Press; 1994.
55. Aristotle. Nicomachean ethics. In: McKeon R, ed. *The Basic Works of Aristotle*. New York: Random House; 1941.
56. Pellegrino ED. The virtuous physician and the ethics of medicine. In: Shelp EE, ed. *Virtue and Medicine: Explorations in the Character of Medicine. Philosophy and Medicine*. Vol 17. Dordrecht, Holland: D Reide Publishing Co; 1985: 237–255.
57. Pellegrino ED, Thomasma DC. *The Virtues in Medical Practice*. New York: Oxford University Press; 1993.
58. Pieper J. *The Four Cardinal Virtues: Prudence, Justice, Fortitude, Temperance*. Winston R, Winston C, trans. New York: Harcourt Brace & World; 1965.
59. Cooper JM. *Reason and Human Good in Aristotle*. Indianapolis, Ind: Hackett Publishing Co; 1986: 63–64.
60. Pellegrino ED. Toward a virtue-based normative ethics for the health professions. *Kennedy Inst Ethics J*. 1995;5(3):253–277.
61. Hippocrates. On the art. In: *Hippocrates*. Vol 2. WHS Jones, trans-ed. Cambridge, Mass: The Loeb Classical Library/Harvard University Press; 1981: 193.
62. Glick SM. Unlimited human autonomy—a cultural bias? *N Engl J Med*. 1997;336(13):954–956.
63. Surbone A. Truth telling to the patient. *JAMA*. 1992;268(13):1661–1662.





# Chapter 2

## THEORIES OF MEDICAL ETHICS: THE PHILOSOPHICAL STRUCTURE

DAVID C. THOMASMA, PhD<sup>\*</sup>

---

### INTRODUCTION

- A Definition of Medical Ethics
- An Analysis of Ethical Judgments

### ROOTS OF ETHICS: ANCIENT FORCES

### THE TREE TRUNK: TRADITIONAL ETHICAL THEORIES

- Teleology and Utilitarianism
- Deontology
- Virtue Theory
- Summary of the Traditional Ethical Theories

### BRANCHES OF MEDICAL ETHICS: DIFFERING PERSPECTIVES

- Public Policy Medical Ethics
- Applied Medical Ethics
- Clinical Ethics
- The Intertwining Branches of Medical Ethics

### PUBLIC POLICY MEDICAL ETHICS THEORIES

- Institutional Policies
- Regulations
- Legislation

### APPLIED MEDICAL ETHICS THEORIES

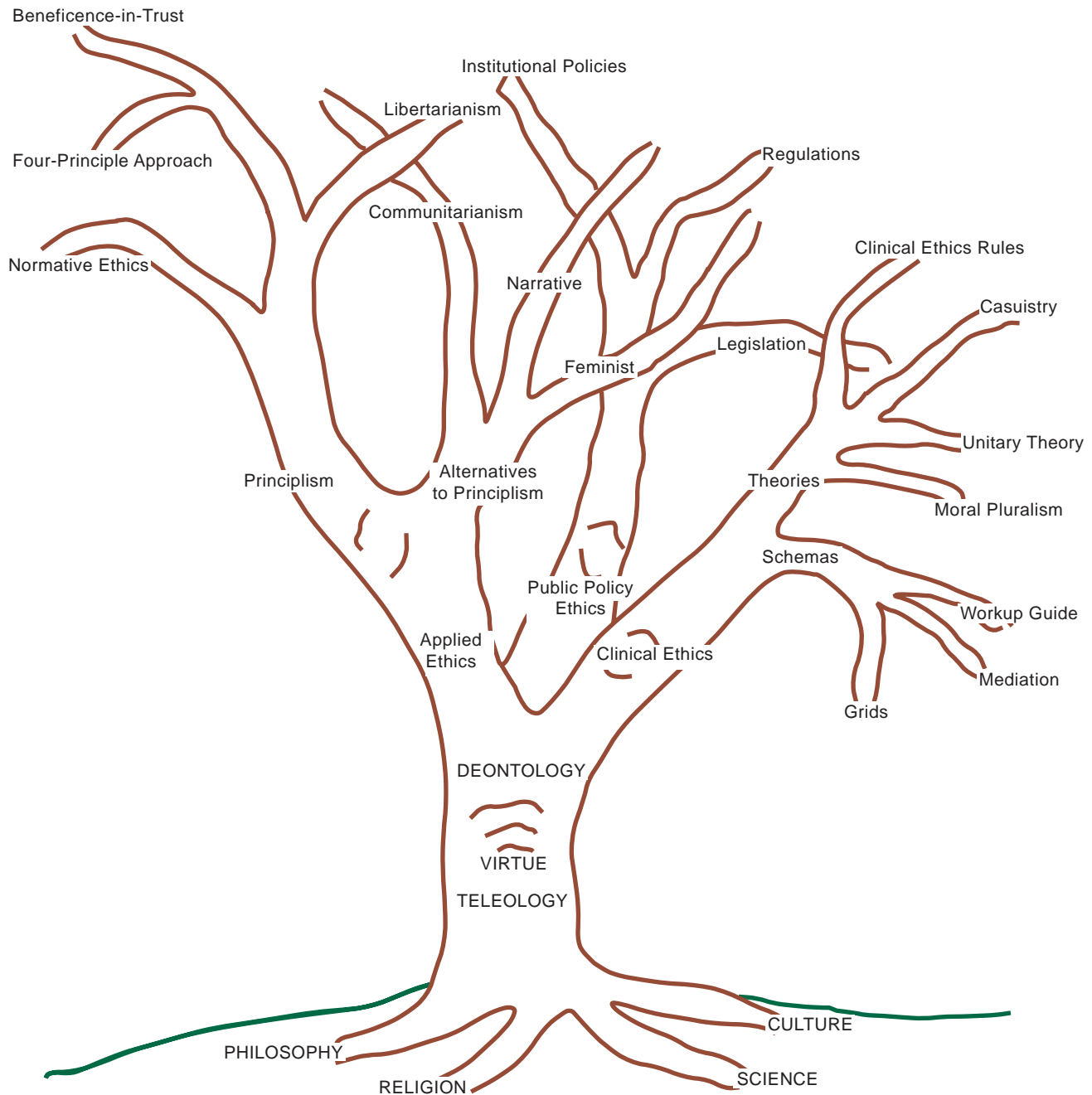
- Principlism
- Alternatives to Principlism

### CLINICAL ETHICS THEORIES

- Methodological Clinical Ethics Theories
- Methodological Schemas: Clinical Ethics Workups

### CONCLUSION

<sup>\*</sup>*Professor and English Chair of Medical Ethics, Neiswanger Institute of Bioethics and Health Policy, Stritch School of Medicine, Loyola University Chicago, 2160 South First Avenue, Maywood, Illinois 60153; formerly, Director, Medical Humanities Program, Loyola University Chicago Medical Center. (Dr. Thomasma died 25 April 2002)*



The “ethics tree,” as shown in this frontispiece, is provided to illustrate the philosophical theories that will be presented in this chapter. The intermingling of religion, science, culture, and philosophy through the many centuries formed the “roots” of medical ethics—the traditions, virtues, and rules that support the moral life. From these roots came the “trunk”—the theories derived from efforts to explain and justify decisions about the moral life. The three traditional theories that comprise the trunk are teleology (which stresses the consequences of what we do), deontology (which emphasizes the importance of duties and obligations), and virtue theory (which discusses the merits of virtue and its importance in living the good life). The trunk, in turn, supports the three major branches of medical ethics, which deal with the moral problems brought about by medicine in the modern world. These three major branches of medical ethics are public policy medical ethics (which must address issues of a broad societal nature), applied medical ethics (which discusses applying medical ethics to the plethora of medical conundrums faced by practitioners), and clinical ethics (which brings all of this into focus by the bedside of the patient). Thus, this tree, with its roots, trunk, and branches, not only demonstrates the relationship between the various theories but also vividly shows the rapid growth of theories more recently, as evidenced in the many smaller branches filling out the tree’s top.

## INTRODUCTION

Having looked at the moral foundations of the patient–physician relationship in the previous chapter, it is now time to discuss how medical ethics can be viewed from many different perspectives and categories. Its roots lie in the ancient professional commitments and codes of medicine. Its branches grew with each succeeding age as new challenges confronted these commitments. Shoots on these branches developed as medical science and practice began to challenge the accepted philosophical, religious, and cultural assumptions of the day (Chapter Frontispiece). For the most part this growth of medical ethics was regular and controlled. Since World War II, however, medical ethics has proliferated and, some would say, even blossomed out of control.

A reason for this is that enormous technological advances have occurred that both threaten and challenge every aspect of human personal and social life, including the ancient commitments of medicine to the value of the human person and the sanctity of human life.<sup>1</sup> As technology in medicine expanded between World War I and World War II, ethical problems arose that threatened the traditional Hippocratic synthesis developed over centuries. There appeared “strangers at the bedside,” new agents that entered into the patient–physician relationship.<sup>2</sup> Many physicians, patients, or surrogates had to turn to ethicists, lawyers, court decisions, legislation, or other forms of clarification for articulating the extent and limits of their duties. Other physicians despaired of ever finding an ethical resolution. Often one hears the phrases, “there can be no solution to ethical dilemmas,” or “there is no right or wrong in such cases.”

Just because the moral analysis required by some of the most pressing dilemmas is difficult, however, does not mean that there is no possibility of resolution. The biggest danger is to reduce moral analysis to personal opinion, or emotional, personal stories. Then, dilemmas that require the highest faculties would be reduced to rhetoric. Ethics is a legitimate discipline that parallels medicine itself. It is both an art and a “science.”<sup>3</sup> It offers a systematic and relatively objective way to approach ethical dilemmas. This appeals to health professional educators, who have developed medical ethics programs over the past 30 years. These programs are still being perfected.

This chapter explores some of the many developments in modern medical ethics. First the mean-

ing of medical ethics will be examined by defining it and looking at how ethical judgments are made. Under that same heading of the meaning of medical ethics, the different levels of medical ethics discussion will be briefly reviewed, as well as how these levels are all interrelated. This point stresses that, despite the distinctions drawn in this chapter, in practice most people tend to employ a variety of tools from different theories in their effort to solve problems and to propose ethical public policy.

The reason for organizing the chapter this way is that there are many theories of medical ethics, just as there are many kinds of medical ethics practices. Among the traditional theories that have predominated in the course of medical ethics, two stand out. The first is utilitarian theory and the second is deontological theory. The first theory analyzes issues in terms of consequences that produce a net of benefit over harms, and the second theory analyzes issues in terms of duties and rights. The first theory has always been exceptional for determining the common good when individual rights, duties, or responsibilities conflict with others, equally well-taken. The second theory, deontology, is excellent for underlining individual responsibility.

After 30 years of success in bioethics, given the abstracting tendencies of both of these traditional theories, a search for alternative theories has arisen. These theories either represent traditional and sometimes ancient approaches to ethics, such as virtue theory, casuistry, or communitarian ethics, or they are more recent efforts to remain true to the concrete and complex arena of human affairs in which medical ethics dilemmas occur. Examples of the latter are feminist ethics, caring ethics, and narrative ethics. These will all be explained later. To complicate matters further, interdisciplinary, international, and intercultural ethics are now being proposed, introducing the perspective of multiculturalism to balance the overemphasis on American value systems, particularly the individualism that influences so much of secular bioethics today.<sup>4</sup>

By dividing the chapter into traditional ethical theories, and then the branches of medical ethics—public policy medical ethics, applied medical ethics, and clinical ethics—some sorting order is presented among the competing models of doing ethics. In each category I will present first the major viewpoints of a theory or model of medical ethics. Then each will be assessed according to its strengths and weaknesses. A unique feature of the chapter is a thor-

ough discussion of the newer field of clinical ethics, which represents a radical break with more traditional modes of ethics analysis, and one more clearly related to the practical reasoning found in medical clinical judgments. (Clinical ethics will be discussed in greater detail in Chapter 3, Clinical Ethics: The Art of Medicine.) This last section, therefore, includes ethics workups and methodological paradigms for clinical ethics analysis.

Throughout, it will help the reader to distinguish different realms of ethics. In each of the above-mentioned domains of ethical theories and models, there are discussions in the literature at the realm of fundamental principles, the realm of axioms (interpretations of principles), and the realm of moral rules (ways to interpret conflicts of values, principles, and axioms). A good example of these realms comes from the injunction against lying. “Lying is wrong,” is a principle. An axiom might be, “It is not wrong to withhold the truth from those who do not deserve it”—say a Nazi storm trooper who demands to know if you are harboring Jewish patients in your hospital.<sup>5(pp7–20)</sup> An example of a rule would be, “Lying may be morally justifiable to save a life or to avoid harming a person.” Figure 2-1 illustrates these three realms in medicine.

It is easy to become confused about these conflicts unless one recalls that all ethical dilemmas involve a clash of cherished values embodied in long-held principles. For any person in a dilemma it is difficult to prioritize these cherished values, for example, telling the truth and saving lives, because they both seem to be highly prized and sometimes irreconcilable. Finding the right balance among these and other values is the heart of the moral life.

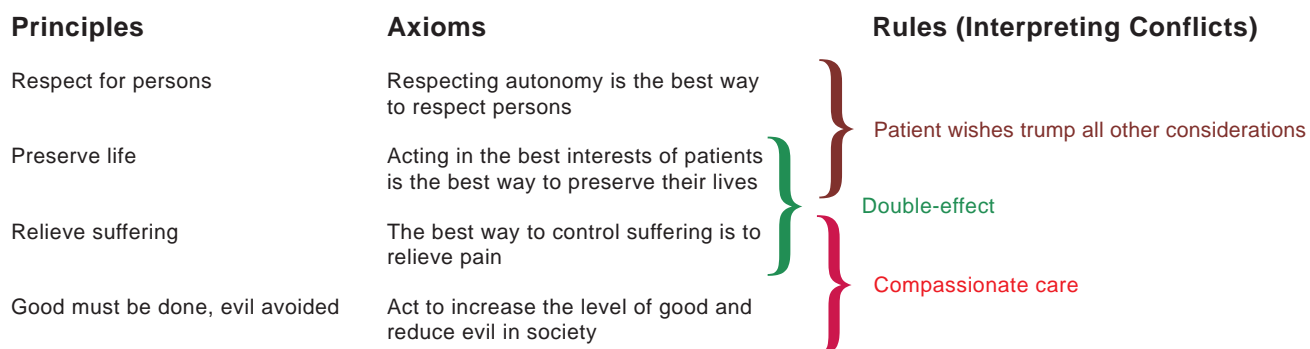
What is medical ethics? Medical ethics is a broad term that encapsulates efforts in public and private

discourse to act with probity. Although key terms in medical ethics are often used without the precision of the sciences, it is useful to spell out their general meaning, beginning with a definition of medical ethics.

## A Definition of Medical Ethics

Before examining different types of medical ethics, one should consider briefly what ethics itself might be. Ethics encompasses both the study and the practice of moral choices and moral values, and the judgments behind those choices. Thus ethics discussion is required by every discipline and is essential to every human enterprise, from education to marriage, from business to dying, from choosing to have children to providing for their upbringing. This wide range is mandated by the fact that all choices involve values, some of which are moral. This means that they are subject to an analysis of the good ends of human life.

Additionally, discussion of those ends—the goals of value choices—encompasses passionate discourse about the need to be moral and about what is a desirable goal: happiness, or simply social survival, or perhaps the maintenance of individual freedom. Such discussion of the higher or “meta” questions entails what one university president calls “civic republican thinking.”<sup>6</sup> By this he means the obligation to participate in society in a meaningful and contributory way, because such ethical reflection is so badly needed in public life. In medical ethics these issues involve more concrete problems such as the goals of healthcare, critical self-reflection about one’s actions, and the development of autonomous decision making on the part of patients, physicians, and others in the healthcare system.



**Fig. 2-1.** Comparison of principles, axioms, and rules. Principles, axioms, and rules operate on different levels of abstraction in ethics. This schematic shows how these function in the specific field of biomedical ethics and patient care.

Another feature of ethics is that its moral analysis can be free of faith-commitments, although individual faiths have contributed greatly to a secular medical ethics.<sup>7</sup> For example, the Park Ridge Center in Chicago was established through Project Ten—a study of 10 fundamental concepts in medicine from the point of view of 10 different faith traditions. These were introduced in a study in which Engelhardt<sup>8</sup> argued that philosophy, not theology, is the queen of the sciences in a secular, pluralistic world. Although it has roots in religious medical ethics, modern bioethics has grown into a very sophisticated secular discipline.<sup>7</sup> It is becoming increasingly international.<sup>9</sup> This freedom from faith commitments suits the moral and religious pluralism of modern culture throughout the world. (See Kleinman<sup>10</sup> for a further discussion of cultural relativism.)

The focus of medical ethics is on making judgments in difficult cases, either those involving individuals and families or those that require social and legal policy, which requires an analysis of ethical judgments. What are they?

### An Analysis of Ethical Judgments

Graber<sup>11</sup> distinguishes three kinds of ethical judgments: (1) evaluative judgment, (2) judgments of duty or moral obligation, and (3) judgments of character or moral evaluation. Evaluative judgment is concerned with what is worthwhile or valuable to do. People make such value judgments many times during a day, from deciding to buy one type of car over another, to a statement that a career in healthcare is important because it assists people. Refining values such as these that shape life's goals and activities are an essential function of living an "examined life," as Socrates urged.

Judgments of moral obligation concern the action to be done or avoided when making an ethical choice and are somewhat independent of evaluative judgments. Rights and entitlements are contained in these moral judgments, as are responsibilities to oth-

ers and to society. "I must remove the ventilator because the patient made it clear in her advance directive she did not want to be maintained on one," is such a judgment of moral obligation. Another example might be the axiom one often hears in medicine, "The patient comes first," meaning that in any conflict of duties, the health professional must put the good of the patient before one's own self-interest.<sup>12</sup>

The double-effect moral rule is another example of a judgment of moral obligation. This rule determines how to act when two or more effects are anticipated, at least one of which is perceived as evil. In medicine this double-effect rule is used to increase pain control at the end of life (the good effect) even though it may contribute to the patient's death (the evil effect). Much of modern medical ethics has been centered around such judgments of moral obligation, particularly with respect to patient rights.

The third type of ethical judgment concerns the character of the moral agent or agents, and expresses praise or blame. "It was evil of the Nazis to exterminate 9 million people," is a very good example. Another would be, "This young nurse is an outstanding caregiver because she is so compassionate." Although not enough attention in the past century has been paid to this type of ethics, it has always been part of the way society, institutions, and the professions themselves have shaped the kind of persons individuals should become, from good citizens, good churchgoers, and good civil servants, to good physicians, lawyers, teachers, nurses, and the like.

All three types of ethical judgment are involved in moral analysis. They are complementary, but can function independently of each other, just as the three major ethical theories can. These will be examined next. Nonetheless they work best in a thorough analysis by being considered in conjunction with one another. Thus ethical analysis combines attention to the judgment of actions (roughly teleology), duties (deontology), and moral character (virtue theory).

## ROOTS OF ETHICS: ANCIENT FORCES

Every society has traditions, virtues, and rules that support the moral life. At the point of development that permits philosophical rather than mythological reflection, there are usually four sources that feed into an ethical theory: (1) religion, (2) science, (3) culture, and (4) philosophy.

1. *Religion*: Religion is the social glue that kept original cultures together. It provided

the guidelines and instructions for conduct along with stories and myths that exemplified good modeling behavior. In secular society it is often used to describe good behavior as saintly, or to condemn bad behavior as sinful.

2. *Science*: As development increased, science and technology grew, usually challenging traditional behaviors and requiring reflec-



tion about them. Today science provides both new knowledge and corresponding challenges. This process requires continuous cultural adaptation among the other forces.

3. *Culture*: From the point of view of ethics, culture is the residue of past experience, a rich and vital source of do's and don'ts that arose in response to various challenges one's people faced.
4. *Philosophy*: Philosophy is a more abstract,

disciplined examination of situations, experiences, presumptions, prohibitions, and virtuous conduct in the other major sources of ethics. Philosophy then contributes to a more generalized level or "theory" of moral conduct beyond one's religious and cultural context.

The results of the intermingling of these four sources can be called the tree trunk of ethics.

## THE TREE TRUNK: TRADITIONAL ETHICAL THEORIES

All ethics theories derive from efforts to explain and justify moral decisions. These decisions in turn require artful examination of different kinds of ethical judgments. In addition, all ethical theories share a broad perspective on objective morality, generating principles, axioms, and rules and providing direction to the question: Why be moral? There are three major theories in the tree trunk of ethics and, thus, in bioethics, that help answer this question.

### Teleology and Utilitarianism

Teleological theories stress the consequences of actions as the first step in analyzing moral activity. Consequentialism is another name given to this class of theories. Teleology comes from the Greek for goal (*telos*) and theory (*logos*). Such theories argue that when the moral outcome of an action is unclear one must choose that action or those actions that provide the best predictability for a good outcome. This is known as act utilitarianism. An alternative approach is rule utilitarianism in which the action must conform to a rule chosen to provide the best predictability for a good outcome. One makes a choice for the most good and for the least amount of harm.

Utilitarianism is most often classed as a consequentialist theory because it proposes that in conflicts, one is ethical if one chooses to maximize the good, and minimize the harm: "The greatest good for the greatest number," is the primary ethical principle of this theory. Mill is the ethicist most identified with utilitarian theory,<sup>13</sup> although it was first advanced by Bentham as an economic and social policy principle.<sup>14-16</sup>

### Strengths

The strengths of utilitarian and consequentialist theory in general are that the theory is outstanding

for resolving disputes between individuals and groups in society. It aims also at public discussion and even measurement of outcomes. With respect to medicine and healthcare delivery, both of which are also focused on visible or public effects of interventions, utilitarianism especially is appealing. It also most often helps resolve conflicts between individual and public duties of professionals. Unlike deontological theory (to be discussed next), which has no explicit provision for resolving disagreements, utilitarianism is almost a required theory of industrialized and technological societies, as well as political activity itself.

### Weaknesses

Teleological theory has been criticized often for the fact that one cannot predict the outcome of actions in advance; thus it is impossible to set the standards of one's moral action on the basis of the act itself. Rather, deontologists argue that the ultimate standard must be one's internal duty. This leads to the primary supposed weakness of utility as a measure of the good. Usefulness to society is not a good criterion for moral probity, because what society finds desirable may often turn out to be evil. For example, the Nazis argued that eugenics was necessary to save the Nordic race (the greatest good for the greatest number), and instituted many programs to sterilize the retarded, and enhance desired characteristics through sperm donation from SS (*Schutzstaffel*—the "protection echelon") storm troopers in the *Mutter und Kind* (Mother and Child) program.

Individual rights and individual conscience can be victims of utilitarian-like thinking. Response to criticism of this sort led to the distinction between act utilitarianism and rule utilitarianism, and to efforts to develop objective standards of the good that would transcend individuals and particular societies.



Ethical theories, such as utilitarianism, tend to be abstract, often with subtle nuances. Case studies, which are used frequently in medicine, are especially appropriate in discussing medical ethics theories as these cases concern real people in the “here and now.” The following case study in truth telling will be revisited several times throughout the chapter to demonstrate the different medical ethical theories.

### *Case Study: Truth Telling*

A 71-year-old widow is dying of end-stage breast cancer. While the cancer has metastasized to her bones and brain, she is still able to converse reasonably well. Her husband died 8 years ago. She has had to face this cancer and its relapse virtually on her own. Her two sisters died before her husband, one from the same disease that is ending her life. Her one source of comfort has been her only child, a computer specialist, who took a leave from his work for 6 months to be with his mother during this final episode of her life.

As the patient slips in and out of consciousness, and her pain control medications increase, she asks for her son, Mark. “Why isn’t he here? Is Mark all right?” she asks. Yesterday her physician and the nursing staff were informed that Mark died in the patient’s home, an apparent suicide. He had become despondent over his mother’s impending death. According to the note he left, he wanted to “be there” with his aunts and father before his mother arrived.

Should the healthcare providers tell the patient about her son’s death?

### *Utilitarian Case Analysis*

How might a utilitarian analyze the truth-telling case? In a calculus of benefits and harms, a utilitarian may argue that the harm to society of dissimulation outweighs any harm to the patient caused by answering the patient’s questions truthfully. Dissimulation would help reinforce a common bad habit of physicians who always want to “hold out hope” for their patients. By contrast, another utilitarian might argue the exact opposite by examining how the truth may cause more harm to this patient and, by extrapolation, to all patients, and therefore to society at large, than avoiding answering her questions. A rule utilitarian may appeal to the importance of truth telling as a general guide in this analysis, but note that this rule would be trumped by other family and professional considerations. Note that different opinions will emerge from within the same general theory. Deontology is the name of the second theory.

## **Deontology**

Deontological theory underlines the importance of one’s duties and obligations. *Deon* is a Greek word for duty. This theory was advanced by Kant, in part to correct for perceived excessive teleological thinking that sought rewards outside the self for being moral. The most obvious reward for “virtue” was to “go to heaven.” Kant found this objectionable because such thinking did not focus on the personhood in moral discourse, but rather and almost exclusively on actions and their rewards and punishment. Further, Kant wanted to preserve ethics in an age of rising science by establishing more objective standards for moral conduct, independent of consequences. In effect he wanted ethics to be more scientific and rational.

The centerpiece of deontological theory is the notion of personhood. Kant elevated that notion to moral supremacy, arguing that a person was a human being who constructed his or her own moral law. This is the meaning of “autonomy,” from the Greek for *auto* (self) and *nomos* (law or rule). Ideally a person acted morally for no “reason” at all, but rather because he is required to act this way as a person. The answer to a child who is rebuked about lying: “But why is lying wrong?” should not be to focus on the consequences of lying—more lies to cover it up, eventual discovery, and so on—but that lying is wrong in itself. A moral person cannot lie because his personhood or integrity as a moral agent would be compromised.

This focus on the person is what led Kant to propose that it is absolutely and always wrong to treat persons “merely as means and not at the same time as an end in themselves.”<sup>17(p47)</sup> If a person is treated as an end in himself, there is a requirement to respect that person’s values. Nothing can be imposed on others against their will, or without their consent. Indeed, Kant would urge that all persons have an obligation to help others accomplish their goals as part of this respect.

### *Strengths*

Deontology helps avoid the rationalizations and delusions to which all human beings are prone, which help justify one’s personal actions and try to convince everyone, including oneself, that they are right. It corrects for “inauthentic” reasons for being moral, reasons such as that one might be found out, or the action would not be good for one’s resumé, or might result in public shame. Profes-

sional ethics especially originates with this conception of duty and obligation arising from the moral center of the enterprise itself, and not solely from public expectations.<sup>3</sup>

An important strength, too, is the effort Kant made to preserve ethics as a discipline, with objective referents, in a scientific age. Because Kant's philosophy was idealistic, he could not claim objectivity in nature, the way earlier natural law theory did, which rested on what was called the objective moral law. (Natural law theory is a notion that inbuilt in human existence itself, in nature, is a "law" that impels people to do what is good as they perceive it. Our founding fathers often referred, somewhat solemnly, to "Nature and Nature's God..." The pinnacle of referring to the natural law in human affairs was the founding fathers' commitment to "self-evident truths." Among them are: We are created; We are equal; We have inalienable rights; and, We are created, in our natures, with desires for life, liberty, and happiness.) Instead, Kant focused on two other objectivities, if they could be so called. First, the act of the person should always conform to the golden rule. Kant<sup>17</sup> expressed it this way: Act always as if what you do would become a universal law. This is called the categorical (or absolute) imperative. Its use is an excellent way to check any contemplated action, or resolution of a case. Would one want this resolution to apply in every instance? This is called universalizing one's conduct.

A second objectivity in Kant's ethics is found in certain "side constraints," or conditions, that can never be overridden for any reason whatsoever. Such serious moral principles might include the injunction against killing an innocent person, against lying, or against harming an innocent person. Thus, for a deontologist, such side constraints restrict individual liberty to calculate the greatest good or even to modify moral principles to suit one's own self-interest. Fried notes how this differs from utilitarian analysis: "It is part of the idea that lying or murder are wrong, not just bad, that these are things you must not do—no matter what. They are not mere negatives that enter into a calculus to be outweighed by the good you might do or the greater harm you might avoid."<sup>18</sup>(pp9–10)

### Weaknesses

Deontology cannot within itself provide for resolution of conflicts among two or more moral persons who profoundly disagree. Of course, they

may peaceably dialogue, but if they both must act on principle to be ethical, compromise from those principles will, by itself, void the duty-based ethic and become one of utility (that is, assuming there is no middle ground). In the truth-telling case, the utilitarian effort to do the right thing may place truth telling secondary to not distressing the patient and therefore an outright lie could be morally justified. By contrast the deontologist has an exceptionless duty to tell the truth; even if it may be delayed for a time, the intent must be truth telling. One could never justify lying to the patient for any reason. The two ethical analyses seem to permit no middle ground.

The same problem holds true for the principles themselves—recall the conflict between lying and harming in the case example. Most of life is involved with such compromises or the interpretation of the priority of some principle, axiom, or rule over another in a certain instance. This prioritizing of principles leads to current biomedical efforts to apply theories to practice and, also, to theories about such application explored below.

Because of this conflict-resolution weakness, deontological theory buttresses individual moral action, and utilitarian theory tends to buttress social and public policy ethics. Yet the individual and society are intimately linked. Kant<sup>17</sup> himself had to appeal to the continued existence of the community to argue that lying was always wrong, and Mill<sup>19</sup> also developed strong individual conceptions of freedom in his essay, *On Liberty*, which is a different work than his utilitarian essays.

A major way to resolve conflicts among duties, principles, obligations, axioms, and rules is to argue against deontology that there are no absolute moral principles (a position of virtue theory). Ethics is then seen as a different kind of "science" than the physical sciences Kant sought to emulate. Another resolution is offered by Ross, and developed by the four-principle approach discussed below. Ross proposed that such serious moral principles would be considered *prima facie* ("at first sight" or "at first blush") obligations. That is to say, they would be taken at face value, other things being equal. They could only be overridden by another serious moral principle, and not just self-interest or inconvenience. Ross proposed seven *prima facie* duties.<sup>20</sup>(pp20–21) Others have proposed more or fewer.<sup>21,22</sup>(pp327–330) This attempt has the benefit of preserving the deontological objection to utilitarianism, and of establishing objective principles for agreement, but may still suffer from the weakness

of neglecting the moral virtue of the agent himself. The person must make the decision about the seriousness of the situation and then judge which principle will take precedence.

### *Deontological Case Analysis*

Using the truth-telling case, a deontologist would argue from principle that it is always wrong to lie because it also destroys the truths essential for social life. At best, a deontologist might argue that some delay (while intending to tell the truth) might be possible, for example promising the patient that one would “try to find out more” about why her son, Mark, does not come to see her anymore.

Is there any other way out of this conundrum? Remember that the utilitarian would weigh the harm to society against the harm to the patient, and would come down on the side of society, even if it harmed the patient. The deontologist would maintain that the patient would ultimately have to be told, although that moment of truth could perhaps be delayed somewhat. How does virtue theory tackle this issue?

### **Virtue Theory**

Virtue practices go as far back as the earliest moral shaping of a child by parents and a community. Virtue theories can be traced to Socrates, who, through Plato's eyes, discussed the merits of virtue and its importance in living a good human life. Aristotle found the discussion of the virtues in Plato inadequate, largely because they were compared in humans to norms in the realm of ideas. Instead, Aristotle formulated virtue theory in his ethics as a branch of politics, or the study of the larger virtues of public life. Rather than in ideas, the virtues were to be grounded in both human psychology (the potentialities, proclivities, personalities, and emotions of persons) and in human affairs (the real relations of persons to one another in friendship and community).

Thus, the virtues are habits formed by one's personality, parental and social training, and professional or other standards suitable to one's life choices and roles in society. A timid child, left untrained in courage, might do fine as a cautious loan officer, but would make a poor captain in the military. If the same child was encouraged to stand up for himself and his principles by his parents and their church, then that child may develop a virtue or habit of acting in a courageous way. This would be a result of basic personality (timidity) and hard

work to overcome it (courage). Now as an adult, this individual may, indeed, exhibit courage as a loan officer or even as a captain.

Further, every social group has a different measure of the balance of virtue in the socially complex mix of personal and community shaping. In one society, eating moderately is a virtue (for instance, today's society urging everyone to stay in shape), whereas another might stress the pleasures of sampling foods to the point of illness or compulsion (the Roman *vomitorium* is a good example). In sports a player is urged to “play through the pain,” a sign of courage, whereas in everyday life a regular patient with the same injury would be counseled to stay in bed. It would be imprudent to keep going. Both examples, of temperance and of courage, are helpful because they show how the body itself provides some guidance for establishing a mean between extremes in any culture—illness that will occur due to over- or undereating, or damage to the body (arthritis in the knee) if one ignores the pain signals too much.

For many centuries virtue theory was largely identified with an Aristotelian view of human nature and human social life. Later, during and after the Enlightenment (when rational thought was emphasized), virtue theory was also grounded in ideas of instinct, common sense, and gentlemanliness. In essence, virtue theory argues that all human beings have an inborn nature that tends to the good in moral actions, but needs molding and direction, and most especially repeated habitual action, to refine that nature away from vices and unbalanced or inordinate behavior. Virtues, in fact, are defined as good operative habits that intensify the potentialities of human nature from its emotions to its intellect and will toward good actions.

Clearly anyone who grew up in a strong community will have been shaped this way, trained by parents and the community, secular and religious, about what sort of person one should be. Some strong communities raise persons considered reprehensible by others. The Nazi storm troopers of the World-War-II era and the Hezbollah in the contemporary Middle East are certainly recent examples. Within their own social and political context, such individuals are considered a type of patriot, a freedom fighter; to the rest of the world they are killers and terrorists.

Morally strong communities stress different virtues; their language and arts are filled with stories and pictures of moral virtues essential for a decent human society: courage, love, friendship, responsibility, truth telling, faithfulness, and wisdom.<sup>23</sup>

The point of these stories and artistic expression is to emphasize the individual's responsibility for choosing the good in every situation. To guard against a misdirected political system or a type of Nazi physician, Pence argued "Certain core virtues are always necessary for any decent society ... physicians need additional virtues, such as humility (the opposite of arrogance), compassion, and respect for good science (integrity)." <sup>24</sup>(pp49–50) This theory of character of the physician was further developed by others such as Pellegrino and this author. <sup>25</sup>

### **Strengths**

Surely the character of the agent is crucial to medical ethics because the health professional is the conduit for interpreting and applying whatever theory is used. Virtue was the implicit and dominant theory in traditional medical ethics until recently. Virtue theory shares with deontological theory the emphasis on the moral agent. It adds to the moral goodness of the agent, assumed by Kant, <sup>17</sup> a richer appreciation of element in moral failure, and hence a requirement to analyze the motives of the agent as well. However, it shares with teleological theory an analysis of the goodness of actions too, because, as Aristotle and Aquinas both argued, all agents act for an end. <sup>26</sup> This means that, independent of a good motive, and a good human being, an action can be wrong in itself. Thus, virtue theorists might argue that euthanasia, although performed out of compassion, is morally wrong because it involves killing, itself an evil act. Alternatively, a virtue theorist might argue that providing uncompensated care for the poor is a good human act, even if done for illicit motives such as personal pride, because the act has a quality of goodness independent of the agent.

Virtue theory thus can combine the strengths of both of the other theories. Its basic principle was articulated by Aquinas as, one should do good and avoid evil. <sup>27</sup> Yet, this principle itself is derived from a natural law theory. Thus the rich tradition of natural law theory, hotly disputed today, provided an anchor for virtue theory in a universal human nature rather than in the realm of Plato's *Ideas* or in later abstract moral principles.

As peoples' awareness became increasingly global, such inbuilt capacities have formed opinions about international rights, the United Nations' Charter, the United Nations' Declaration of Human Rights, and many subsequent condemnations of "local" practices such as the use of organs taken from condemned prisoners or purchased on the world's black markets. <sup>9</sup>

An additional strength of virtue theory is its explicit grounding in the community. Individuals are not perceived separate from their own community. Further, virtue theory is less of an absolute certainty. Moral boundaries are surrounded by haziness and even sometimes darkness at the edges. There is room for nonabsolute moral judgment that is generally, for the most part, true.

### **Weaknesses**

It would be simplistic to argue that a return to virtue could be a sole basis for medical ethics. This might have been possible were moral pluralism and relativism less a characteristic of Western society. MacIntyre <sup>28</sup> has shown brilliantly how irretrievable is the metaphysical consensus in the modern world that virtue theories require. The model of good conduct, and the search for and development of a "good life," require considerable public agreement and reinforcement of conduct that is respectful (of others, of property), honest (probity of judges), and dedicated (the compassionate physician). Virtue ethics by itself does not provide sufficiently clear action guides; it is too private and too prone to individual definitions of virtue or the virtuous person. At the same time, its unexamined public roots may harbor social consensus about the good that is, in fact, evil, as in the Nazi examples of loyalty to one's nation and race.

Virtue theory must be anchored in some prior theory of the right and the good, and of human nature in terms of which the virtues can be defined. It also requires a community of values to sustain its practice. <sup>29</sup> The carrying out of these virtues not only requires public consensus about right and good conduct, it also demands a metaphysical agreement about what counts as the good. This will require a conceptual link with duties, rules, consequences, and moral psychology, in which the virtue of prudence plays a special role. <sup>30</sup>

### **Virtue Theory Case Analysis**

Turning again to the truth-telling case in this chapter, it becomes apparent that virtue theory needs some guiding principles or standards. If two physicians consider themselves virtuous exemplars of modern medicine, both kind, courageous, and compassionate, they may still disagree about the relative importance of truth telling; one might think that the need to comfort the patient and be charitable toward her would require backing off her question about why her son no longer comes to see her. The other may still adjudicate the importance



**TABLE 2-1**  
**TRADITIONAL ETHICAL THEORIES AND ASSOCIATED THEORISTS**

	<b>Teleology</b> <b>John Stuart Mill</b>	<b>Deontology</b> <b>Immanuel Kant</b>	<b>Virtue</b> <b>Aristotle</b>
Goal	Happiness, goal of action.	A good will.	Happiness, all actions.
Premise	When moral outcome is unclear, one must choose action that provides best predictability for good outcome.	A person acts morally because he is required to as a person (underlies the importance of one's duties and obligations).	All human beings have an inborn nature that tends to be good in moral actions but needs molding and direction.
Means	A calculus of pleasures and values justifies actions.	A good will is one that acts from duty.	The virtues reinforce natural tendencies toward happiness.
Meaning of the good	Happiness is pleasure and the avoidance of pain.	Acts are done from duty if they are what reason requires.	The good is happiness conceived as meshing with the common good.
Norms	Act always to maximize the benefit (good), which is pleasure. This is an absolute norm. Act always to maximize the sum of pleasure for all who will be affected by one's act (Principle of Utility).	Categorical Imperative: Act always as if what you will do will become universal law. Or, never treat persons merely as means only but always as ends in themselves. Norms are absolute.	Actions should conform to the best human behavior as evidenced by scientific study of nature and psychology. Norms apply only generally and not absolutely.
Strengths	Is outstanding for resolving disputes between individuals and groups.	Helps avoid the rationalizations to which all persons are prone; it corrects for "unauthentic" reasons for being moral.	Combines the strengths of Teleology and Deontology; "do good" and "avoid evil"; is explicitly grounded in the community.
Weaknesses	One cannot predict outcomes in advance, thus it is impossible to set the standards of one's moral action on the basis of the act itself.	Cannot provide for resolution of conflicts among two or more moral persons who profoundly disagree.	Is simplistic; does not provide sufficiently clear action guides; is too private, too prone to individual definitions.

Adapted with permission from Thomasma DC, Marshall PA. *Clinical Medical Ethics: Cases and Readings*. New York: University Press of America; 1995: 10.

of truth above compassion. Both, however, might conduct a greater self-examination than is found in other theories, especially asking what effects lies make on their own lives and those of their family and students, as well as other healthcare providers, who look to them as role models.

### Summary of the Traditional Ethical Theories

Before leaving the discussion of the "tree trunk" of medical ethics, it is helpful to briefly review the three types of theories that form the trunk—teleo-

logical, deontological, and virtue. As already noted, teleological theory stresses the consequences of actions. While this approach is quite helpful for resolving disputes between individuals and groups in society, it fails to address the fact that one cannot predict the outcome of actions in advance. Deontological theory underlines the importance of one's duties and obligations. It thus helps avoid the rationalizations and delusions that people might want to use to justify their actions, but it cannot within itself provide for resolution of conflicts among two or more moral persons who pro-

foundly disagree. Virtue theory can be traced to ancient philosophers, such as Socrates and Plato, who discussed the merits of virtue—the habits formed by one’s personality, parental and social training, and professional or other standards suitable to one’s life choices and roles in society. Virtue theory thus can combine the strengths of both of

the other theories. Its basic principle is “Do good, and avoid evil.” However, virtue ethics by itself does not provide sufficiently clear action guides; it is too private and too prone to individual definitions of virtue or the virtuous person. A further comparison of the three traditional theories is presented in Table 2-1.

## BRANCHES OF MEDICAL ETHICS: DIFFERING PERSPECTIVES

Medical ethics, then, is a field of study about moral problems created by the modern practice of medicine. There are at least three distinct branches of the field: public policy medical ethics (macro level); applied medical ethics (meso level); and clinical ethics (micro level) each of which contribute to a holistic analysis of ethical issues. Over-reliance on any one of them creates its own dangers.<sup>31</sup> They should be balanced with one another.

### Public Policy Medical Ethics

Problems addressed in public policy ethics are those that affect large groups and include the right to healthcare for all citizens, different ideas about being just and fair to persons, and establishing public limits on medical treatment. An example might be what is called “age-based rationing,” that is, a proposal to cut off high-technology medical treatment after people reach approximately 80 years of age. Other problems for public policy are controlling medical research, ensuring drugs are made available for severe illnesses such as acquired immunodeficiency syndrome (AIDS), ensuring that research is done on diseases that affect one gender more than the other, and helping professions such as medicine, nursing, pharmacy, and physical therapy to establish their own professional codes of behavior.

A good example of public policy medical ethics is provided by arguments about competitive business models of healthcare delivery, such as health maintenance organizations (HMOs). Do these models compromise acting in the best interests of patients (principle of beneficence); access to care and research for those people not covered in the plan (greater good); or acting for others rather than out of self-interest (the virtue of altruism)?

### Applied Medical Ethics

Under this heading are examined different articulations of applying ethical theory itself to moral conundrums. The four-principle approach (dis-

cussed later) is a good and common example. Another approach (also discussed later) is libertarian ethics. Others, as mentioned in the introduction, provide alternatives to a principled approach by stressing the importance of context, narrative, and the perspective of caring. I will take up only a few of these models of application in both the principlism and alternatives to principlism categories that are examined next.

Issues in this applied medical ethics branch cover arguments about the ethics of abortion, euthanasia, treating the young rather than the old when there is not enough medical care to go around, *in vitro* fertilization (ie, starting human life in a test tube), manipulating genes to bring about a better human being or to remove the genes that cause diseases, helping people conceive children, withdrawing life-support at the end of life, discussing whether food and water given through tubes can also be withdrawn so a person can die, and the limits of a person’s freedom to make decisions in a community.

### Clinical Ethics

A third branch of medical ethics can be called clinical ethics. This branch is actually part of medical decision making itself. On a case-by-case basis, clinical ethics evaluates the morality of decisions made by and with patients and their families about care. The type of problems that arise in this branch of medical ethics include: deciding to remove life-sustaining treatment from a loved one; making decisions for patients who are either too young or too senile to make them themselves; responding to requests for active, direct euthanasia; or directing the treatment of a very retarded newborn infant. The range of decisions is from birth to death.<sup>32</sup>

### The Intertwining Branches of Medical Ethics

For the purposes of discussion, these three branches have been separated, but in actuality they work together. People with AIDS must be concerned about public policy regarding medications available



and nondiscrimination (public policy medical ethics), they must participate in arguments about whether or not physicians are obliged to treat them (applied medical ethics), and decisions about their care, including their dying, must be made with their loved ones and physicians (clinical ethics). An elderly person must be concerned about society's commitment to care for the aged (public policy medical ethics), arguments about the use of ventilators for

elderly stroke victims who have other diseases (applied medical ethics), and making advance decisions about one's care, such as a living will or a decision about whether or not one wants to be resuscitated in the event of a heart attack after entering a nursing home (clinical ethics). In general, public policy medical ethics deals with statistical groups of people, applied medical ethics with targeted issues, and clinical ethics with a specific patient.

## **PUBLIC POLICY MEDICAL ETHICS THEORIES**

The division of bioethics into branches is my own idea, not necessarily shared by others. I have developed this approach to allow individuals and groups to understand the complexities of not just the decisions themselves, but also of the underlying perspectives and categories that so forcefully impact these decisions. Public policy medical ethics addresses a wide range of societal issues that have been fueled in recent years by the rapidly evolving fields of medicine, science, and politics. When medicine could only offer minimal intervention in the march of disease, societies mainly had to concern themselves with issues of protection, that is, the prevention of disease spread. But with these rapid new advances in areas that were scarcely understood only a few decades ago, public policy medical ethics has had to take on the difficult issues of who gets what in an era of burgeoning scientific possibility but limited resources, whether those limitations are caused by the availability of the treatments themselves or payment for those treatments. Public policy medical ethics also addresses issues of "ought" and "can." What ought a society do for its members? What can it realistically undertake? Public policy medical ethics falls into the following subsets or branches: institutional policies, regulations, and legislation.

### **Institutional Policies**

These are the policies developed by health institutions regarding ethical issues. Good examples might be whether or not to offer some reproductive services such as pregnancy enhancement (a fertility clinic) or pregnancy termination (an abortion clinic). An organization, and I include health insurance companies in this group of health institutions, might consider what its mission and philosophy might be toward accepting Medicaid patients, or perhaps taking a more active stance in preventing teenage pregnancies or the spread of sexually transmitted diseases. These organizations

would thus be weighing what their roles should be in these societal issues against what their resources would allow.

### **Regulations**

Regulatory agencies such as Health and Human Services (HHS), the Food and Drug Administration (FDA), or national health services such as the Department of Veterans Affairs (VA) direct their attention to ethical matters by instituting frameworks in which these matters are addressed. They publish rules such as the guidelines for research on animals and human subjects, ethical considerations in research on human embryos and fetal tissue, rules for reporting adverse effects in genetic therapy research, or proposed rules for allocating scarce resources such as human livers for transplantation. Thus, these various regulatory agencies bring order out of the chaos generated by the rapid advances in medicine.

### **Legislation**

It is predominantly state legislatures and the US Congress that regularly pass legislation that includes bioethical considerations. In the past, legislation regarding the treatment and reporting of persons with AIDS, the minimum number of days in the hospital for giving birth, and required insurance coverage of emergency room treatment were good examples. Examples of needs that have recently occupied Congress include the issue of a patient's bill of rights in health maintenance organizations (HMOs) and the need for a national health plan that would distribute healthcare more justly and fairly. In the future it is easy to imagine that legislation will be necessary to address what becomes of the information explosion that will accompany the human genome project.

Thus public policy medical ethics provides a broad overview of the ethical considerations that a

society must address in the allocation and delivery of healthcare to its citizens. However, despite the weight of these considerations, they are not the main thrust of this chapter. Rather, this chapter will focus on how ethical judgments are made by understanding the various defining philosophies that

shape and mold these ethical viewpoints. It is only through an appreciation of the complexity of these issues that one can come to better understand how these oftentimes difficult decisions can be made as justly as possible for a patient, the family, the healthcare organization, and the greater society.

## APPLIED MEDICAL ETHICS THEORIES

This discussion now turns to an analysis of applied medical ethics theories, and then to clinical ethics theories. Applied medical ethics theories are those that concern ways principles or general ethics can be helpful in situations or issues. I separate these into two major categories: (1) principlism and (2) alternatives to principlism.

### Principlism

Key to all principlist views of applied ethics is a recognition of the importance of acting on principle in ethics. The idea of this group of medical ethics models in applied ethics is the weighting of the principles when applied to practice. Each model differs in the weight it assigns to one or another of the principles in applications to the real world situation.

#### *The Four-Principle Approach*

This branch of bioethics was developed by scholars such as Beauchamp and Childress, Veatch, and Engelhardt during their association with Georgetown University, in Washington, DC. The model underlines the principled approach of autonomy, beneficence, nonmaleficence, and justice, and is the leading approach in what is now regularly called “the Georgetown Mantra,” a phrase sardonically suggested by Clouser and Gert.<sup>33</sup> They were critical of the lack of reflection often found in analyses by those who apply the four-principle approach to medical ethical issues, even though they recognized how widespread the model had become.

The philosophers who began to examine medical ethics brought a variety of well-established moral traditions to bear on their reflections, usually some variant of act- or rule-based teleology or consequentialism. But one theory, Ross’ theory of prima facie principles, had a particular appeal. It soon became the dominant way of “doing ethics.”<sup>20(p19)</sup> An early example of this approach could be found in the *Belmont Report*, a study by the President’s Commission for the Protection of Human Subjects in Research. There, four principles

are used to examine the many complex issues in human subject research and to mold the Guidelines for Research that now characterize modern institutional review boards (IRBs).<sup>34</sup>

In that report, autonomy, beneficence, nonmaleficence, and justice were balanced with the goods that can be sought in biomedical research. Subsequently guidelines were established that protected the subject’s autonomy (by requiring informed consent), beneficence (by disclosing risk/benefit, and IRB review and monitoring), nonmaleficence (by using clinical safeguards and testing), and justice (by protecting from unfair burdens of research).

As mentioned, this approach originally was adapted from ethics to medical ethics by Beauchamp and Childress in their volume, *Principles of Biomedical Ethics*.<sup>35</sup> Beauchamp and Childress recognized the difficulties of attaining agreement on the most fundamental roots of ethics, on the nature of the good, on the ultimate sources of morality, on the limits and validity of moral knowledge, or even on which theory should predominate. To bypass these problems, they followed the direction taken by Ross and opted for prima facie principles, that is, principles that should always be respected unless some strong countervailing reason exists that would justify overruling them.

Four principles in this prima facie category were especially appropriate for medical ethics—autonomy, beneficence, nonmaleficence, and justice. This set of principles had the advantage of compatibility with deontological and consequentialist theories, and even with some aspects of virtue theory. It has been applied widely to the resolution of ethical dilemmas by medical ethicists, and especially by health professionals.

**Strengths.** The four-principle approach has several strengths. First, it reduces some of the looseness and subjectivity that characterized so many ethical debates. More objective standards now appear. Second, it provides fairly specific action guides. And, third, it offers an orderly way to “work up” an ethical problem in a way analogous to the clinical workup of a diagnostic or therapeutic prob-

lem. This point will be examined in the chapter's final section on clinical ethics models.

In addition, two of the *prima facie* principles, beneficence and nonmaleficence, are identical to the Hippocratic obligations to act in the best interests of the patient and to avoid doing harm. Finally, a major strength of the four-principle approach is its potential for cultural neutrality. This notion has been further explored by Gillon.<sup>36</sup> To the four principles he adds a concern or analysis for the scope of their application to individual cases or issues. A more recent example can be found in Gillon's enormous exploration of the role of the four-principle approach in many contemporary issues, and in other cultures and faith-traditions.<sup>37</sup>

**Weaknesses.** The principle of autonomy directly contradicts the traditional authoritarianism and paternalism of the Hippocratic ethic, which gave no place to patient participation in clinical decisions. Both autonomy and justice are unfamiliar and even, in some sense, antithetical to beneficence and nonmaleficence. This conflict gives rise to one of the imputed weaknesses of the four-principle approach for medical ethics—its lack of grounding in clinical realities. Paternalism is inherent. Autonomy *appears* to be imported.

Modern physicians have had the greatest problems with the principle of autonomy because it is often interpreted as being in opposition to beneficence. This is an erroneous interpretation as beneficence and autonomy can be linked in medicine.<sup>38,39</sup> Physicians have belatedly come to accept the principle of autonomy largely because it is central to informed consent and consistent with the individualistic emphasis on privacy and self-governance that had set the initial metamorphosis of medical ethics into motion. Many physicians and ethicists, however, are still not fully convinced of the soundness of autonomy as a primary principle for medical practices.<sup>12</sup>

Many fear the absolutization of autonomy, which may override good medical judgment or encourage detachment on the part of the physician. As autonomy of the patient became the primary principle of clinical interactions, patients were able to overturn physician beneficence in favor of their own freedom. Patients can choose to die rather than remain on a ventilator. This is a good thing. But what of a heart surgeon who would like two more weeks of therapy to discern the level of function before acceding to the patient's demands to stop treatment? Thus a measure of beneficence could override autonomy at some point. As some thinkers have noticed, a view of the patient as

individual and autonomous is fundamentally flawed because all people are actually vulnerable social beings immersed in a vast network of relationships.

Of the four principles, justice is the most remote from traditional medical ethics. Despite its prominence in the philosophies of Plato and Aristotle, justice received no specific attention in the Hippocratic ethic, which centered on the welfare of individual patients and not society. Historically, justice entered medical ethics much later, usually in relationship with a physician's forensic duties. More recently, for example, physicians such as psychiatrists or infectious disease specialists, caring for potentially dangerous patients, have had imposed on them a duty based in justice to warn others close to the patient, and even perhaps the community at large (as exemplified by the Tarasoff case, which is discussed in Chapter 3, *Clinical Ethics: The Art of Medicine*, of this volume).

Contemporaneously, justice has entered medical ethics more forcibly as disparities in the distribution of healthcare have become more apparent. The possibility that physicians may become agents primarily of fiscal or social purpose rather than of the patient increases daily. Acting as "gatekeeper" or "rationer" poses a worrisome conflict of obligations for many traditionally-minded clinicians. Nonetheless, Rawls'<sup>40</sup> sophisticated contractarian theory of justice and his lexical ordering of obligations and principles relative to distributive justice have placed justice squarely in the forefront of today's medical ethics. His is the best modern treatment of justice. That justice is an intrinsic virtue of medicine still requires more analysis than it has traditionally received, although current interest in the ethical and rationing issues of managed care brings it squarely into focus.<sup>22,28,41</sup>

The authors of the four-principle approach were, of course, well aware of the limitations of Ross' system of *prima facie* obligations—that is, the difficulties in putting any set of abstract principles into practice in particular cases and the difficulty of reducing conflicts between *prima facie* principles, or within a single principle, without some hierarchical or lexical ordering of the principles. Ross' rather vague formula of taking the action that gives the best balance of right over wrong really begs those questions. Some standard by which to measure the appropriateness of the balance one comes to in making a decision using the four principles is still needed.

To accommodate those shortcomings, Beauchamp and Childress<sup>35</sup> proposed four requirements

that must be met to justify “infringements” of a *prima facie* principle or obligation: (1) the moral objective sought is realistic; (2) no morally preferable alternative is available; (3) the least infringement possible must be sought; and (4) the agent must act to minimize the effects of infringement. These bioethicists hope in this way to steer a course between the absolutism of principles and the relativism of situation ethics. Their requirements are helpful but do not eradicate the inherent limitations of any set of *prima facie* principles that is not lexically ordered, or at least based on clinical realities themselves.

The primary objection to the four-principle approach is a general critique of principlism itself as a methodology. Principlism appears to some to be too deductive. This criticism is based on a concern that ethics in general, and medical ethics in particular, not become too abstract and formulaic, and instead concern itself with concrete features of the moral life.

Serious criticism of the four-principle approach was raised in the April 1990 issue of the *Journal of Medicine and Philosophy*. In that issue, Baruch Brody<sup>42</sup> called the four principles “mid-level” principles, meaning that they are, themselves, in need of rational justification and of a firmer grounding in one of the great moral traditions. Clouser and Gert<sup>43</sup> decried the lack of a unifying moral theory that would tie the principles together and give them the conceptual grounding they need. Were such a theory available, of course, it would make the principles unnecessary. Holmes<sup>43</sup> contended that philosophical ethics, itself, is of limited value. He called for “moral wisdom” for which philosophy does not prepare us. Gustafson<sup>44</sup> argued that philosophy is an insufficient tool for confronting the broad agenda of biomedical ethics. He further noted that prophetic, narrative, and public policy elements must be included in biomedical ethics, as these elements are more suited than principles to resolution of key ethical issues in healthcare.

In this vein, an early criticism of Beauchamp and Childress was that they held opposite theories (utilitarianism and deontology, respectively), yet could reach agreement on a fundamental approach, which would seem to render ethical theory useless. Perhaps instead of seeing this as a damning critique, it can be taken as a measure of success—especially if their purpose was to apply the best of the theories to medical ethics.

The truth-telling case can again provide an example. The four principles are all equally important for guiding the discussion and resolution of the

clinical dilemma of what to tell the patient. Suppose autonomy (her right to be informed in this case) is weighted over beneficence (acting in her interests to prevent her from additional suffering on her deathbed). The infringement guidelines still seem to be rather remote to the physician who has accepted the woman as a patient. Greater attention to the patient’s life story and value system, along with greater awareness of the healing relationship, is also needed to justify balancing one principle to have greater moral weight over another in a particular case.

### *Normative Ethics*

A second, related, approach to the four-principle approach is what can be called a normative medical ethics. By this is meant a theory that develops specific norms for medicine.<sup>45</sup> Many remedies, therefore, are offered to replace, prioritize, complement, or supplement *prima facie* principles.

Some proposals have already been noted. For example, Veatch,<sup>22</sup> as part of a draft medical ethics covenant, or social contract, spells out six principles: (1) fidelity, (2) autonomy, (3) honesty, (4) respect for life, (5) justice and equality, and (6) respect for persons. Veatch is more concerned with the contract itself rather than the specific norms, as a theory of obligation that would help justify the principles to which all parties, physicians and patients, would agree. The ground for the principles would rest on the social contract.

Beauchamp and McCullough<sup>38</sup> speak of principles as “models” that specify goals in medicine. These goals in turn are values from which one derives physician obligations and the virtues of the medical profession, and presumably, those of the patients as well. They stress the differences between the autonomy model and the beneficence model. Both are normative, but both lead to different primary principles and, therefore, different moral obligations.

**Strengths.** There is much to be said for a normative medical ethics. By appealing to norms one is able to ethically justify one’s application of theories and principles to specific cases. The norms help prioritize important values, such as healing, truth telling, and compassion, that arise as important in the case of the dying mother and her son, the suicide victim.

**Weaknesses.** Nonetheless norms must still find justification for their own prioritization by appeal to some external lexical rule that itself cannot be found within the norms themselves. An external lexical rule is a comparative assertion. A norm may



say, "I always must tell the truth." When norms conflict, one must appeal to an ordering principle to rank them. In clinical ethics, one might rank norms based on a primary duty not to harm the patient. Truth telling would then be subordinate to nonmaleficence.

There are some medical ethics theories that do not accept grounding in the clinical realities of medicine. Instead, the ordering principle of norms could only be found in social consensus. Veatch's social contract theory, for example, requires an assumption that there is no inherent moral center within the discipline of medicine itself. All its values are simply socially constructed by implicit or, as he proposes, explicit contracts.

### *Libertarianism: Primacy of Autonomy*

So far it has been shown that some normative theories might rank one principle above all others. Engelhardt, for example, places autonomy in the first order of priority,<sup>46</sup> ahead of beneficence.<sup>47</sup> This is also the position of Childress,<sup>48</sup> who argues that in any conflict, autonomy must trump all other values. It can be expressed as a rule that autonomous actions cannot be overruled by other values or priorities.<sup>49-51</sup>

More explicit debate about autonomy has been furthered by proposing that the basis of all bioethics, of all ethics in fact, is respect for autonomy. Engelhardt's argument is that it is impossible to be ethical if one ignores an individual's autonomy. For Engelhardt,<sup>46</sup> autonomy is supreme in all decision making. His thinking develops for medical ethics a full-blown theory of the primacy of autonomy, derived from Nozick's<sup>52</sup> conception known as libertarianism.

Autonomy, in Engelhardt's view, is the necessary condition of possibility for doing ethics in a postmodern age. He calls it a necessary "side constraint," thus arguing for a deontological understanding of its importance. Because there can be no agreement about the good in a pluralistic age and no assumption about primary values when all things are called into question, the only possible way to proceed in bioethics is to respect each individual's autonomous thinking and behavior and to reach consensus through dialogue and resolution from this respectful vantage point. Engelhardt's<sup>53</sup> later revision of his position does not change this basic conception.

**Strengths.** The autonomy assumption deserves a rich analysis because of its preponderance in American bioethics. For the moment, examine what a great burden the concept of autonomy has to carry

in Western bioethics tradition. It is shorthand for a way of respecting persons. It carries with it a connotation of being first among equal values or principles. It is a requirement of all ethics. It functions as a condition of possibility in postmodern ethical analysis. (Exhibit 2-1 explores the condition of possibility and postmodern philosophy further.) It underscores the importance of the individual over the community. Because of these and other meanings, autonomy has become overburdened in bioethics.

For the philosopher, autonomy almost always stands for the individual's self-determination. As suggested above, such self-determination has acquired an almost "sanctified" quality in Western secular society. The words "autonomy" and "self-determination" have an aura in both spoken and written English that is hard to describe to persons from other cultures that might use the same words. The aura suggests the American revolution, the sense of fair play, of "no taxation without representation," of individual rights over and against the state, of "don't tread on me," of Jeffersonian Democracy in which individuals are endowed with inalienable rights, including the right to liberty.

**Weaknesses.** Such emphasis on autonomy tilts all the analysis away from the realities of the clinical setting and real-world conflicts toward a kind of idealism that tries to make concrete an abstraction that glorifies the individual in society to the detriment of the community.<sup>54</sup> It is important to realize that a critique of the importance of autonomy in bioethics is also, by its very nature, a critique of bioethical methodology itself, especially if that methodology proceeds deductively from the principle of autonomy.<sup>5</sup> In such a view, individual choice legitimates all morally-controverted issues.

Absolutization of the patient's autonomy, then, is a subject of growing concern. Libertarian assumptions implied by this emphasis have led many thinkers to counter autonomy with the need for beneficence as well.<sup>12,55</sup> The implications of conflicts about medical ethics and ethical theory for the active euthanasia discussion, to take one example, include the libertarian push for active euthanasia that might endanger the health professional's values in caring for the dying patient. This push may diminish the moral quality of the relationship between physician and patient. It clearly tends to place exclusive emphasis on the needs and wants of the individual patient. A full-court press of autonomy leads to the notion that persons should be able to buy poisons off the shelf at the drug store without any requirement to consult with, or even be under the care of,

## EXHIBIT 2-1

### THE CONDITION OF POSSIBILITY AND POSTMODERN PHILOSOPHY

The "Condition of Possibility" is a formal cause of an entity, event, or human activity. For an entity, progenitors are conditions of possibility. For an event like a cure, conditions of possibility might include the action of a chemotherapeutic agent, biochemical and cellular responses, and the personal and professional interaction of doctors and patients. For a human activity like ethics, a condition of possibility is a necessary requirement for proceeding further.

"Postmodernism" is a current movement eschewing all theory in favor of concrete contexts and situations. It recognizes cultural plurality. Thus, to be ethical in this environment one must dialogue to reach consensus with many interests and stakeholders. One condition of this dialogue must be respecting other persons' rights.

Today's postmodern philosophy will probably not be helpful in reducing the burden of autonomy. For example, Rorty denies the possibility of arriving at any truths through philosophy and the relevance of any theory of reality.<sup>1</sup> Derrida (as discussed by Madison) likewise denies that there is any truth, only the appearances and words to which we impute whatever meaning we think they may have.<sup>2</sup> Williams takes the same skeptical view of ethics and moral accountability.<sup>3,4</sup> These writers demolish philosophy, theology, and ethics simultaneously in full capitulation to the Nietzschean legacy.<sup>2</sup> For Nietzsche, the idea of one truth was an illusion: All we are capable of discussing are multiple truths seen from many perspectives which are incommensurable with each other.<sup>5</sup>

(1) Rorty R. *Philosophy and the Mirror of Nature*. Princeton, NJ: Princeton University Press; 1979. (2) Madison GB. Coping with Nietzsche's legacy—Rorty, Derrida, Gadamer. *Phil Today*. 1992;36:3–19. (3) Williams B. *Ethics and the Limits of Philosophy*. Cambridge, Mass: Harvard University Press; 1985. (4) Williams B. *Moral Luck*. Cambridge, Mass: Harvard University Press; 1981. (5) MacIntyre AC. *Three Rival Versions of Moral Enquiry: Encyclopaedia, Genealogy, and Tradition*. Notre Dame, Ind: University of Notre Dame Press; 1990: 32–57.

a physician. This "self-deliverance" is touted as an ideal by some, such as Humphrey,<sup>56</sup> in the right-to-die movement. Similarly, other overemphases on autonomy lead to a diminished role for physicians who become, at best, servants of patient or consumer demands, and at worst, lackeys without a voice in the healing relationship.<sup>57</sup>

Like all assumptions about basic principles, the emphasis on autonomy leads to the question of what society ought to be. In light of the overburden on the concept of autonomy, it would be good to ask what autonomy actually means for the patient with illness,<sup>58</sup> and for the health professionals themselves.<sup>57</sup> This leads to a further application theory proposed by Pellegrino and Thomasma, called "beneficence-in-trust."

#### **Beneficence-in-Trust**

With the benefit of a much more developed psychology of decision making than was present at the time of Kant, one can add to the view he held that autonomy is an essential function of moral personhood. Decision making includes many factors interrelated among themselves and with autonomy, some of which are the stresses and strains of life, mental and physical well-being, and quality

of life.<sup>59</sup> A far richer tapestry of ethical considerations emerges from locating the need for respecting autonomy within the patient's life plans and projects. Individuals perceive and formulate their goals in different ways, and prepare for adjustments differently, too, should these become necessary.<sup>60</sup> These are all elements of a person's values that ought to be respected in the healthcare relationship.

According to this application theory, rather than the primacy of autonomy in the patient-physician relationship, the physician should hold "in trust" the patient's value system as far as possible. This position is called "beneficence-in-trust."<sup>12</sup> Beneficence-in-trust means acting in the best interest of individuals while keeping "in trust" their levels of moral values. Thus, it may not be as important to respect autonomy by respecting persons' decisions as it is to provide in a healing relationship the necessary conditions for individuals to develop their own reintegrating techniques. Given how differently individuals exhibit autonomous behavior, it is important to intertwine these actions and reactions to serious illness within the patient-physician relationship. The therapeutic relationship itself occurs within many different contexts from primary care to tertiary.<sup>61</sup>

Beneficence-in-trust, then, proposes that the good



in medicine is healing. This good is an inherent quality of the discipline itself, and the basis on which all parties in a therapeutic relationship can agree. From this good are derived moral axioms that make medicine a moral enterprise.

A second consideration for beneficence-in-trust is the family context, a conglomerate of individual life plans and values found in the individual's "biography," and the family and work context that helps shape those values and that biography. These values are important because they embody a set of personal choices the individual has made over the years. In fact, values can be seen as the consistent basis for decisions the individual made in the past, decisions in which choices among goods had to take place.

In the truth-telling case introduced earlier, it is overwhelmingly clear that the mother and son had a close and caring relationship. The knowledge that no relationship runs automatically and that all relationships take hard work, maintenance, and upkeep, suggests just how valued was this arena of the patient's life. Straightforwardly honoring her wish to know may be a form of cruelty that would abandon her to her own autonomy. One strategy for beneficence-in-trust might be to answer her by emphasizing their loving bond not being broken by his absence. In this strategy the value or "truth" of the relationship she had with her son is valued over telling her he committed suicide.

**Strengths.** Hence, for the beneficence-in-trust approach, undue emphasis on autonomy is faulty, because it may be based on inadequate views of the patient's decisional strategies. These strategies are based on fundamental values that might precede expressed wishes. Thus the value hierarchy of the patient is more important than a spur-of-the-moment decision. The patient's individual view of what counts as autonomy may be different than that of the physician. A responsibility of the healthcare professional is not so much to respect decisions, although that is surely the case, as to create an environment and a treatment plan that empowers the decision on the basis of the patient's values.

Such decisions take place over time and require that both patients and physicians transcend the sphere of moral strangers, and become, in some sense, friends to one another.<sup>62</sup> This point has profound implications for the goal of treatment, the amount of time that patients and physicians must spend with one another, and the types of questions that ought to be asked during medical encounters. At the very least, negotiation about the good to be achieved ought to take place explicitly. It should be apparent to everyone what the "treatment plan" should be.

However, not all goods and services need to be negotiated. Some limits ought to be established ahead of time, for instance, whether or not physician-assisted suicide is to be permitted, or whether medically futile treatment can still be requested. Most importantly, autonomy is part of an individual's circumstances of life, and cannot be understood apart from the particularities of that life, cultural experiences, personal history, expectations of the medical relationship, and family and personal values.

**Weaknesses.** The major weakness of the beneficence-in-trust model lies in the way healthcare is taught and delivered today. If physicians are not helped to explore their human experiences and to be sensitive to the human pathos and finitude that is part of falling ill and dying, then responding to these deeper values in the patient's life story becomes difficult, if not impossible.<sup>63</sup> This makes the problem of healthcare providers and patients being strangers even more important.

Healthcare today is offered by strangers to strangers. When confronting one another as strangers, patients and physicians alike must spend time examining fundamental values, something not always possible or reimbursable. Dialogue about values is essential for the proper respect for autonomy and for the personhood of the patient. This is so because autonomy is less about decisions than about the structuring of one's values over time.

The next category of theories, alternatives to principlism, roots the normative principles of medical ethics within the context of a person's story, and helps one to understand why ethics situated in the patient's story has become so important today as another type of application theory. Thus, rather than basing one's professional ethics in, and rather than resolving medical ethics dilemmas by, appealing to more abstract principles and moral theory, one does so by the more complex route of examining (and reexamining) value priorities behind decisions arising from the healing relationship between physician and patient, and the web of decisions they both have made in their lives. These application theories, then, provide the strongest foil to relying solely on principlism for ethical analysis.

## **Alternatives to Principlism**

### ***Communitarian Ethics***

To many medical ethicists, a welcome relief from recent overemphasis on individualism in bioethics is provided by communitarian ethics. Led by Etzioni at Washington University in St. Louis, Missouri, communitarians stress that with powerful

individual human rights come powerful human responsibilities for meeting the community's needs. Some typical communitarian arguments are, for example, that children should participate in medical research because they are members of their societies.<sup>34</sup> With the proper consent and oversight of parents or guardians, they need to be trained in their obligations to others in the community. Another communitarian argument can be found in proposals to increase the supply of organs for transplantation by stressing duties to one another in society. For example, Harris,<sup>64</sup> an English ethicist, suggested that one's body ought to become the property of the government at death. In this way organs could be retrieved because they are in such scarce supply at present. Strictly speaking, then, communitarian ethics proposes a new moral theory, and is not itself a theory of application.

Loewy<sup>65</sup> has written extensively about the faults of an autonomy-based ethics for bioethics from the point of view of the community. Loewy's argument for communal ethics goes much deeper than just a critique of libertarianism, or an argument for obligation and responsibility for one another, however. He seeks to establish the moral foundation of ethics in the capacity to suffer. This is an expansion of the communitarian ethic not followed by others. Exhibit 2-2 develops his argument further for the interested reader.

**Strengths.** Faced with the reality of pluralism, one cannot expect agreement on principles or ideals. One must turn in the other direction, back towards nature and the nature of mankind itself, for some universal grounding. Then, too, the awareness of the capacity to suffer, for example, permits one to value more than the mind (principles, values, axioms, and so forth) in ethics, and forces all people to evaluate their life situations. In turn, those life situations involve, among many things, caring for one another. However, a purely caring ethic as discussed below (without objective guidelines) would lead to a vacuous justification of actions on the basis of "care" or "commitment" alone. As Loewy<sup>66</sup> points out, the Nazis certainly "cared" about the survival of their society in carrying out their extermination programs.

**Weaknesses.** Nonetheless, this approach too easily dismisses the role of ethical theory in working out individual case resolutions.<sup>67</sup> If more abstract principles are seen as transcendent to individual lives, their merit is derived from the moral experiences of many peoples in many epochs. If the structures of suffering, or other bases for communitarian ethics, are seen as immanent to human experience, they also function across time and civilizations. The task of interpreting either ethical principles or moral responses to these human capacities or both is always subject to interpretation. Interpretation is

## EXHIBIT 2-2

### "SUFFERING" AND COMMUNITARIAN ETHICS

Erich Loewy represents a more fundamental position within the field of communitarian ethics. While he is sympathetic to virtue ethics, the merits of Kantian and utilitarian ethics, and casuistry as a method in clinical ethics, he argues that clinical ethics needs a firmer grounding in a more universal principle than any of these theories can provide. He argues that "a deeper and more universal grounding can be found in the capacity of sentient beings to suffer."<sup>1(p85)</sup> From this straight forward concept, Loewy builds a hierarchy of value: individual beings who can suffer have primary moral worth (ie, worth in and of themselves); those beings who cannot suffer have secondary moral worth (ie, worth only to others); and those beings who once had this capacity, but no longer do so (eg, a person in a vegetative state), have symbolic value only (ie, they remind us of what they once were), but no longer possess primary moral worth. One can readily see why Loewy would support transplant of organs from anencephalics, for example, but not from an otherwise healthy pig or monkey.

The concept of suffering as a moral basis for ethics is an important return to a new kind of natural law theory that would ground our obligations in physiological function. However, caring must dovetail into the structures of suffering and relief common to all animals. Otherwise we could too easily take our interpretation of adequate responses to suffering as moral truth.

(1) Loewy EH. The role of suffering and community in clinical ethics. *J Clin Ethics*. 1991;2(2):83-89.

shaped by the individual's own contemporary culture, traditions, and professional training. Thus, if a communitarian ethics is relied on totally, one might miss the wisdom embodied in the formulations of more abstract principles.

### *Narrative Ethics*

A major alternative to the four-principle approach is narrative ethics. Largely an import into medical ethics from theories of literature, but also from religious ethics, narrative ethics underscores the importance of the individual's story for a proper moral analysis. Indeed, the argument goes, narrative ethics locates the primacy of different principles and the richness of their meaning within the context of a person's story.

Another source of narrative ethics comes from an emphasis upon negotiation in the patient-physician relationship. Very few patients, for example, choose to exercise their right to complete advance directives about their care. Most prefer to leave the judgment about their care, should they become incompetent, to either their physicians or their families. This seems surprising to autonomy advocates. On the surface it might be.

But consider that healthcare is offered in the context of relationships—one's relationships with one's own life and family, workplace and culture, and within the quasi-mystical relationship itself of the healer and the patient.<sup>68</sup> Patients seem to recognize ahead of time that the story of sickness and health is a variable one, not one subject to absolutely firm a priori conditions that can always be laid down ahead of time.<sup>69,70</sup> Thus, persons in such relationships, both the patient and the physician, are "bound" by such stories in ways that have not as yet been fully explored in bioethics.

**Strengths.** Principles, it is said, are too abstract, too rationalistic, and too removed from the moral and psychological milieu in which moral choices are actually made; principles ignore a person's character, life story, cultural background, and gender. They imply a technical perfection in moral decisions, which is frustrated by the psychological uniqueness of each moral agent or act.

Furthermore, principles, and indeed all primary values, need further explication to defend their prioritization in a particular case. Using the truth-telling case as an example, note that arguing for either the primacy of truth telling or the primacy of paternalism (protecting the mother on her deathbed from the horrible news of her son's suicide) requires

argumentation based on her unique situation at this time, her value system, sensitivity to relationships, the healing task, and the professional duties of physicians. Principle-based ethics may be ineffective in the complexity of these considerations.

**Weaknesses.** These objections from narrative ethics against a four-principle approach are well-met, yet it seems that some variation of the four-principle approach will survive the criticisms leveled against it. First, "principles"—that is to say, fundamental sources from which specific action guides, like duties or rules, derive and are justified—are implied in any ethical system. The Hippocratic ethic, for example, was virtue-based, but its action guides were rules and principles. Second, there are equally serious limitations found in any alternative theory to principlism. Third, the necessity and utility of principles become increasingly evident when one tries to apply the alternative theories to actual cases; and, finally, principles are not inherently incompatible with other theories. The real question, as old as moral philosophy itself, is how to go from universal principles to individual moral decisions and back again.

### *Feminist Ethics: Ethics of Caring*

More radical than other theories of application, some (or most) feminist ethics reject the four-principle approach to varying degrees. There are at least three forms of this theory. The first is a "softer" form than the other two.

This form argues that a feminist perspective can enhance current medical ethics by providing a different, complementary point of view of a formerly male-dominated field. Primarily this additional perspective centers on holistic perspectives on the sick person and the healing relationship. The argument seems to be a culturally determined one: Women are traditionally expected and trained to be more sensitive than men to relationships, contexts, and value histories. By contrast men are considered to be interested in abstractions. In the truth-telling case, women associated with the patient's care might add the perspective of what it is like to be a mother dealing with the loss of a son.

The second form of feminist ethics is more critical than the first. It tends to argue that the previous perspective is so warped by a need to formulate principles and abstractions, that a different ethic altogether is required. This ethic is often called the ethic of caring, which, as already mentioned, dovetails with a communitarian ethic. Presumably a

focus on this ethic as a domain of women suggests that if males do “care,” they do so in radically different ways that historically, at least, have evacuated the emotional life out of ethical analysis. Arguing abstract moral principles about truth telling and duties at a dying mother’s bedside is, according to this view, not just unfortunate, but desiccated. It does not represent authentic care for the patient.

Caring is the main aim of healing relationships.<sup>71,72</sup> Adherents of this view hold that women are more caring than men in the way they approach ethical decisions. They are presumed to be more interested in relationships than individual assertions, in reconciliation than in winning arguments, in “attachment” than detachment, and in nurturing rather than dominating.

The third form of feminist ethics is completely radical. It holds that there is no validity at all in any other approach than a feminist mode of reasoning. Identifying all previous moral theory as the product of a male-dominated society, this form of radical feminism targets the entire medical complex as flawed, and asserts that it must be tossed out in favor of the insights brought to bear from a comprehensive feminist point of view. It is difficult to see how this position would differ from the other two with regard to caring for the dying mother in the truth-telling case, except perhaps to emphasize how the delivery of care itself is flawed. In particular, the proper care for the son in this relationship with the mother, it might be argued, was clearly ignored or mishandled. That might be what led to his suicide.

**Strengths.** There is no question that overly theoretical reasoning has characterized ethics in the past. Then, too, few would, or could, deny the necessity of an account of caring in any comprehensive theory of medical ethics.<sup>73,74</sup> Further, both academia and the medical profession itself have been male-dominated

until recent times, lending credence to at least the suspicion that such domination also contributes to thought patterns and general assumptions about ethics. Gilligan’s<sup>75</sup> research on different patterns of moral reasoning, on which some of these forms of caring ethics are based, is a serious philosophical contribution to rectifying this myopia.

**Weaknesses.** There are both empirical and philosophical objections to the care model of moral reasoning, and to the application theory itself.<sup>76,77</sup> Flanagan<sup>78</sup> noted that gender differences, for example, may be based more in social class, culture, self-image, and personal ideals than in the developmental psychology of Freud or Kohlberg. In the latter’s analyses, moral development takes the form of greater and greater abstraction, moving primitive, narcissistic motives to be good (“I don’t want to get caught.”), through rule-bound behavior (“Stealing is wrong.”), to acting on the basis of major values that may mean taking risks (“I can steal these drugs to save someone’s life.”). By contrast, Gilligan’s ideas of moral development stress compassion for, and sensitivity to, individuals within their contexts, as well as consulting with others. She bases her views on research regarding how men and women differ when analyzing moral dilemmas and trying to make difficult ethical decisions.

These gender differences and their contribution to medical ethics surely should be factored into any future biomedical ethic. But “caring” is subject to such wide varieties of interpretation that it, too, needs some grounding in a principle or rule to be a trustworthy guide to specific ethical decision making. As already noted, Loewy<sup>79</sup> has effectively argued that the Nazis, too, “cared” about their programs, thus establishing the need for more objective standards in medicine than care itself. In the end, moral psychology is an adjunct to, but not a replacement for, ethical principles.

## CLINICAL ETHICS THEORIES

A third category of theories are those that offer a methodological basis for clinical ethics judgments. This field is so new that very few explicit theories of clinical ethics have been proposed. I offer my own distinctions among them; however, these distinctions are not widely recognized. A number of approaches are worth summarizing here. They fall into two broad categories: methodological clinical ethics theories and methodological schemas. The theories are explained first, then the schemas are grouped later under one subtitle.

### Methodological Clinical Ethics Theories

#### *Casuistry*

Another alternative to principlism, particularly appealing to clinicians because it focuses on concrete and particular cases, is the revival of casuistry.<sup>80</sup> The casuist looks for cases that are obvious examples of a principle, that is, a case on which there is sure to be a high degree of agreement among most, if not all, observers. The casuist then moves



from the clear to more dubious cases and puts them in order by paradigm and analogy under some principle. Casuistry, therefore, does not eschew principles, nor is it incompatible with them. Its nemesis is the *absolutization* of principles.

Casuistry has an ancient past. It is the heart of the Jewish moral tradition. After the Reformation it entered into Roman Catholic moral theology as well, first as a method of pastoral care and then as a moral theory in its own right. Casuistry was (and is) not without controversy. Note that it depends on a paradigm case. Reasoning from that standard case to the particular one at hand involves comparison, analogy, and interpretation. Over time and centuries “principles” might emerge from many similar cases, but these would be inductively derived, and would perhaps not be applicable to new, unforeseen situations.

Casuistry is familiar and accommodating in clinical ethics. It closely parallels reasoning from case precedents in Anglo-Saxon law, and clinical reasoning in medicine, where the patient’s situation is compared to “the classic description” of a disease.

**Strengths.** Casuistry focuses on a paradigm case from which the new case resolution is derived by analogy. This process almost exactly parallels the process of clinical reasoning itself, which relies upon “the classic picture” of a disease entity, and then compares the circumstances of the new patient to that classic case. It is therefore an important model that is understandable to clinicians, even with its historic problems.

As such, then, the rejuvenation of casuistry looks like an idea whose time has come, given the caveats expressed thus far about overly abstract moral theory. It is particular, detail- and case-sensitive, and requires almost exquisite sensitivity to the subtle nuances of caring for the individuality of the patient and her values. How often have you heard a teacher or colleague refer to a personal experience with a difficult case to exemplify how to behave now, in the face of another similar case?

**Weaknesses.** Casuists try to circumvent the moral pluralism of contemporary society by historical analogies with the past. But casuistry is a product of the culture of the Middle Ages when there was consensus on certain principles (the Ten Commandments, for example). It runs into difficulties when there is no such consensus, because the moral viewpoint of any society defines both what it considers a dilemma and what counts as a paradigm case.<sup>81,82</sup> Casuistry, as it was used in Jewish and Catholic moral theology, functioned within a context

of a common belief in God, the destiny of humankind, and the acceptance of authoritative interpretation and rules.<sup>83</sup> No such consensus exists today in a pluralistic society.

More to the point, no such consensus exists even within a moral community. The heart of this objection lies in the argument that using paradigm cases from the past is like comparing apples and oranges. The paradigms don’t “fit,” so the argument goes, and hence the analogies with current cases are invalid. Two brief examples bring this problem to the fore.

A pulmonary specialist might ask a Rabbi whether it is ever justifiable to withdraw a ventilator from a dying patient. The Rabbi may compare this dilemma with a paradigm case that happened in a Russian village in the 14th century. There a woodchopper was disturbing the dying process of a neighbor. The families disputed. Eventually the Rabbi was consulted. He resolved the issue by determining that even though one disputant depended for his living on woodchopping, nothing should be permitted to disturb the neighbor’s dying, as that was a call from God. Today’s Rabbi would then apply the story by asserting that anything could be withdrawn that “disturbs” (ie, prolongs) the dying process even if the physician’s living “depends on” (ie, is “oriented to”) preserving life.

Note the problems, however. Today’s medical environment is virtually nothing like a 14th century Russian village. Common beliefs are not shared. Persons may not agree that dying is God’s calling a person for a final journey. Or a different Rabbi (more Orthodox, for example) might arrive at a different conclusion. Notice, too, how a moral community of the 14th century is different from the pluralistic society of today.

A second example further demonstrates this point. In arguing about the morality of separating conjoined twins when one is directly killed in order to reconstruct the heart of the other, one might refer to a plethora of analogous situations<sup>84</sup>—each analogy is “like” the separation case. Killing one to save another in a hostage situation, killing in combat to avoid being captured by the enemy, a machine on which two persons depend and one must die, fetal reduction in multiple pregnancies, to some extent survival of the fittest, and so on.

In every example a great deal of interpretation occurs, not only about what features of the current and paradigm cases are parallel, but also some analogies between key concepts in both cases. Further, the conclusions from one commentator to an-

other may differ.

As a result, casuistry can function as a method of case analysis, but not as a reliable guide for moral theory or practice. Yet this criticism can be leveled against all clinical ethics theories because, by their very nature and purpose, their focus is on clinical resolution rather than on justification of moral theory.

### ***Moral Pluralism***

A different approach is offered by several thinkers who have developed clinical ethics. Jonsen, Siegler, and Winslade define clinical ethics as “the identification, analysis, and resolution of moral problems that arise in the care of a particular patient.”<sup>85(p3)</sup> Their book on clinical ethics develops models of reasoning for each set of clinical problems they address under different categories. In effect, these authors define patterns of cases that call forth different kinds of moral analysis depending on the pattern. Combining the wrong kind of moral analysis with a different category of cases leads to poor outcomes. A good example would be using public policy analysis, which works for larger questions of allocation of healthcare, to the truth-telling case of the dying mother and suicide son.

Baruch Brody,<sup>86</sup> in another example, proposes a theory of moral pluralism for clinical ethics. His goal is to provide a moral framework for analyzing questions of conflicting values and resolving them. The name he gives to his model is “the model of conflicting appeals.” The pluralism of his approach is evident as he writes: “The moral theory advocated in this book is not an abstract moral theory, a theory whose mode of application is unclear. It takes from each of the traditional abstract moral theories a component that needs to be combined with components of other theories in a way that produces a type of model for decision making that can be applied to difficult cases.”<sup>86(p8)</sup> In effect, then, mixing and matching theories and concepts leads to a perception of pragmatism in employing different theories and concepts. One uses what works. After all, ethics, like medicine, is a practical discipline. It seeks resolution and good (defensible) conduct.

### ***Unitary Theory***

A number of ethicists have argued that clinical ethics is a type of moral hermeneutic.<sup>87</sup> Hermeneutics (after the Greek messenger to the gods, Hermes) is a name for a theory of interpretation. It has al-

ready been shown how much interpretation is involved in moral analysis of cases. One view of hermeneutical clinical ethics theory is that medical practice itself in the clinical context can function as a unifying principle for other theories of ethics. Put another way, clinical ethics as medical hermeneutics interprets the clinical situation in light of a balance of other values that, while guiding the decision making process, also contribute to the very weighting of those values. In this view, the case itself originates ideas not only about which values ought to predominate in any resolution but also about clinical rules that might become useful in other, similar cases.

What the clinical ethics theories under this rubric share, then, are moral strategies for resolving *classes* of cases rather than just individual ones. Further, there is a theory attached to these strategies. This theory (what I call unitary theory) proposes why one, rather than another, moral strategy is appropriate for each class or category of cases. A simple example would be that autonomy analysis would apply to a competent patient. The limits of the physician’s recommendations might be effortful persuasion. If the patient is incompetent and has no valid or trustworthy surrogates, then autonomy analysis is less important than that based on beneficence. This is why advance directives are still debated—are they adequate to discover the alert but incompetent patient’s values, for example?<sup>88</sup>

### ***Clinical Ethics Rules***

Related to the normative ethics theory (which is one of the alternatives to principlism that has already been discussed), clinical ethics rules is yet a different model. This model establishes a set of clinical ethics rules that would help interpret important principles with respect to different kinds of cases.<sup>89</sup> An example of such a rule about self-determination and critical illness might be: “The less likely a good outcome might be, the lower the quality of consent or advance directive that is required to withhold or withdraw care.” Obviously, if one can hold out some hope for a critically ill patient, then his or her consent to continue to treat is important to obtain.

At the other end of the scale, if there is no hope, then according to this clinical ethics rule, a physician would not be required to obtain consent, for example, to withhold resuscitation efforts. (This is called a unilateral DNR [do not resuscitate] order.) Note that rules such as these derive from many year’s experiences with patient care, rather than



solely from moral theory itself.

Along these lines, the most specific clinical ethics methodology with the least amount of theory can be found in a small, useful book by Junkerman and Schiedermayer,<sup>90</sup> intended for clinicians. The authors, like Jonsen, Siegler, and Winslade before them, take up specific clinical problems, for example the incapacitated patient, and in several short steps help a clinician ask the right questions and provide needed information (about the law, ways to assess competence, and other issues).<sup>90</sup>

By contrast, the most theoretical clinical ethics proposal can be found in Graber and Thomasma, *Theory and Practice in Medical Ethics*.<sup>5</sup> The authors propose a “unitary theory” of medical ethics, stated as follows:

Certain conditions (C) are present in this case such that the probability (X) exists that Value (V) A will be judged more important than B by (I) interpreters because the Principle (P) P' will more likely apply to the case than P".<sup>5(p194)</sup>

This statement abstracts from the various components of forming a clinical ethics judgment and the clinical ethics methodologies that have been considered in this discussion. Note that it also tries to protect the role of moral principles as well. Reflect back on the truth-telling case and apply this unitary theory:

Conditions (C) are present in this case—the mother is dying and the son committed suicide. These conditions make it more probable (X) that the values of compassion, respect, protection from harm, avoiding anxiety (V A<sub>1</sub>, A<sub>2</sub>, A<sub>3</sub>, A<sub>4</sub>, etc.) will be judged more important than other values such as respecting her autonomy, her right to know, and answering truthfully (V B<sub>1</sub>, B<sub>2</sub>, B<sub>3</sub>, etc.). The virtues of the interpreters (I) also enter into the decisional schema. Physicians involved in caring for this dying mother will be likely to interpret the “A” values to be more important in this case than the “B” ones compared to, say, lawyers or an ivory-tower philosopher. Finally, defense of the priority of the “A” values over the “B” ones means that the principle (P) of nonmaleficence (P') will be invoked more than the principle of autonomy (P'').

The reason for abstracting this unitary theory from clinical ethics methodologies is to stress the need to pay close attention to each and all of the components, rather than just to one or another. This general theory closely follows and impacts other independent views of the nature of clinical ethics

in that: (a) it is a process of decision making involving a case to be resolved; (b) certain prominent conditions are creating the moral dilemma; (c) there are values at risk that must be weighed and balanced; (d) interpreters such as the patient and physician must perform that adjudication; and (e) moral principles that function as objective standards must be reconciled with the actions in the case.

These theories of clinical ethics hold out great promise as long as they are not misperceived as a foundation for moral theory itself. All such theories attempt to distill the best of more general moral theories down to a lesser level of clinical abstraction.<sup>91</sup> There is a limit to the ability of ethics to conform to medical realities, however. The language and concerns of medical ethics sound very different than the language of cardiology or other specialties that are brought to bear on patient care. Hence, as Sheehan notes, “problem solving in clinical ethics is a necessary but not sufficient goal in teaching.”<sup>92(p292)</sup>

Yet the primary purpose of medical ethics is practical. As Howard Brody notes: “Medical ethics, after all, is supposed to be a guide to action; and our high-sounding ethical theories and methods will look unimpressive if they do not, in the end, offer practical guidance in the sometimes confusing world of medicine.”<sup>21(p35)</sup>

### Methodological Schemas: Clinical Ethics Workups

Instead of focusing on clinical ethics theories for resolution of conflicts, many medical ethics educators developed their own methodological schemas—clinical ethics workups. These are practical models for “working up” a case. These workups can be accomplished using grid models, workup guides, or mediation models, or perhaps even some combination of approaches in the really difficult cases. What works best for any given individual will be guided by the specifics of the case as well as the ethicist’s own particular theoretical views, as has already been discussed in this chapter.

#### Grid Models

There are many grid models in the literature, but for the purposes of this discussion the focus will be on the three most commonly used: the “Thomasma Contextual Grid,” the “Glaser Grid,” and the “Siegler Grid.”

The “contextual grid” model lexically orders pri-

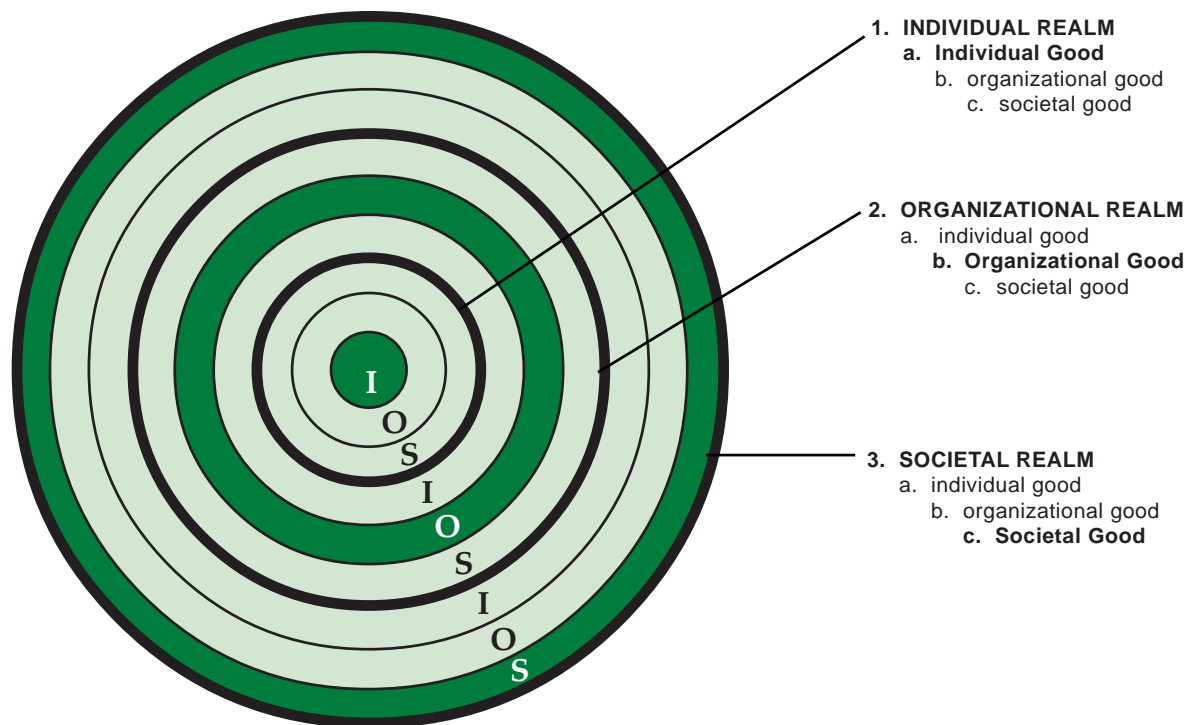
<b>Level of Care</b> ↑ ↓	Tertiary One 1–3	Tertiary Group 2–3	Tertiary Society 3–3
	Secondary One 1–2	Secondary Group 2–2	Secondary Society 3–2
	Primary One 1–1	Primary Group 2–1	Primary Society 3–1
	One Person	Family/Community	Society
	<b>Number of Persons Affected</b> →		

**Fig. 2-2.** The Thomasma contextual grid. This contextual grid model orders the seriousness of the medical event, combined with the numbers of persons involved, to assist caregivers in ethical decision making. As the level of seriousness of the illness or accident increases from 1 to 3 (vertical bar), the less the caregivers need to be concerned about autonomy and the greater the degree of beneficence and even paternalism that might be justified in order to save an individual's life. So in box 1, primacy of place belongs to patient choice in working with a physician in a primary care setting. By contrast, in box 3, in an emergency situation, primacy of place goes to the assumption that life must be saved, and an intervention begun unless the individual specifically objects. Similarly along the horizontal axis, the greater the number of individuals affected, say a family in the 2nd tier, or society in the 3rd, the greater the justification to act for the common good over the objections of individuals. A good example might be a cholera outbreak, or the requirement to obtain inoculations before attending school. The grid illustrates how the context helps clarify and even determine the balance of principles in resolving each moral dilemma that arises in health care. It is not sufficient to argue that one or another principle should always predominate in medical ethics. Source: Thomasma DC. A contextual grid for medical ethics. In: Bruhn JG, Henderson G, eds. *Values in Health Care: Choices and Conflicts*. Springfield, Ill: Charles C Thomas Publishers; 1991: 117–118.

macy of place to autonomy or to beneficence or even to paternalism for public safety according to levels of criticality of care, on the one hand, and levels of numbers of persons affected on the other.<sup>61</sup> This model (Figure 2-2) underscores the importance of context in prioritizing values. Consider, for example, the lowered requirement for consent in the emergency room (ER) than in a primary care setting or the difference between triage that would be performed for a serious burn affecting one patient and that performed on a busload of children burned in a crash. The most intense disaster might be exemplified by Hiroshima or the battlefield where triage is aimed at those least injured and most likely to survive rather than at those most severely injured and therefore least likely to survive. Grids such as

this one help everyone understand why priorities among values and duties vary, not just from case to case, but also from context to context.

Glaser has proposed a unidimensional grid (Figure 2-3) in that he believes there is really only one ultimate principle, beneficence, which he calls the “neglected constant of ethics.” Conflict occurs, he thinks, not among principles so much as among realms. He identifies three realms: the personal, the institutional, and the social. In his view, there is no human possibility for resolving conflicts among these realms, but he does propose a model for moving from the personal to the social.<sup>93</sup> Considering the truth-telling case, then, Glaser might argue that its inherent conflict between compassion and truth telling is actually a conflict between act-



**Fig. 2-3.** The Glaser unidimensional grid. Glaser conceptualizes beneficence as the “overlooked constant of ethics”—it is the foundational principle for bioethics. In any ethical decision, the underlying intention is to “do good”—the dilemmas arise when there are competing goods to be done. This concept involves identifying the underlying and possibly conflicting beneficent goals. Typical ethical analysis has focused exclusively on the individual physician’s duty of beneficence to the patient. However, there is also a reciprocal beneficence required from the patient to other individuals. There is a still wider view of beneficence involving institutions and societies doing “good” as well. This describes three realms of beneficence. The grid expands this further to look at doing good to individuals, institutions, and society within each of these realms. Glaser proposes an analysis of the three fundamental realms of beneficence utilizing a grid of concentric circles to illustrate the complex relationships between these three realms.

**Individual beneficence:** The simplest realm of beneficence is the realm of individual beneficence. Here the concern is primarily with the good of individuals and their relationships, relationships that exist within one individual between various values and needs—physical, emotional, mental, and spiritual—and between two or more individuals. However, there is an element of beneficence required from the individual toward the institution or society. Therefore, in this realm of individual beneficence there are three subperspectives: (1) within and between individuals, (2) from individuals toward organizations, and (3) from individuals toward the larger society.

**Organizational beneficence:** Normally the use of the word beneficence has only individuals as its referent. The present analysis understands beneficence in terms of organizations as well. Organizations are both subject and object of beneficence. A primary object of organizational beneficence is the net organizational good, that is, a state of organizational vigor and development that enables the organization to maximize its purpose now and into the future. But such pursuit of the organizational good must also consider the individual good of those within the organization. Organizational beneficence must also attend to the common good of the society within which the organization exists. Thus there are three subperspectives: (1) primarily to the organizational good, (2) while considering the good of the individual, and (3) the good of the overall societies.

**Societal beneficence:** The final realm of an ethic of beneficence is that of society. Societal beneficence is another term for the ethics of the commons. The many conflicting needs/goods of the commons—education, housing, defense, health care, art, infrastructure, and so forth—must be balanced to achieve the common good. But in seeking this common good of society, the good of individuals and the good of organizations cannot simply be ignored. As in the other two realms of beneficence, the concern must look in three directions: (1) primarily to the common good—the net good of society as a whole—and secondarily to (2) the good of organizations and (3) the good of individuals.

**Determining the primary level of ethical concern:** Most issues have ethical significance on all three levels and need to be addressed on each level appropriately. However, these levels are rarely of equal importance. Some issues are primarily “institutional issues,” with the individual/societal levels being secondary considerations. Other issues are primarily issues of individual ethics, and still others are essentially issues of society ethics. One of the fundamental starting points for ethical discussion will be to determine which level is the preeminent level of ethical importance.

Adapted with permission from Glaser JW. *Three Realms of Ethics: Individual, Institutional, Societal*. Kansas City, Mo: Sheed & Ward, 1994: 10–15. Copyright© 1994, John W. Glaser.

ing in a personal relationship tied to the particulars of the mother's case and acting as an agent of the hospital or of society (which might require balancing the case more towards truth telling than compassion).

Siegler developed a grid of four primary issues through which one would work to analyze a case.<sup>94</sup>

This four-category grid (Figure 2-4) was later employed by Siegler and his co-authors, Jonsen and Winslade, as the basis of their book on clinical ethics. It focuses on: (1) indications for medical intervention, (2) patient preferences, (3) quality of life, and (4) socioeconomic factors.<sup>85(p5)</sup> One first establishes whether there is a problem in the first cat-

<p><b>MEDICAL INDICATIONS</b></p> <ol style="list-style-type: none"> <li>1. What is patient's medical problem? history? diagnosis? prognosis?</li> <li>2. Is problem acute? chronic? critical? emergent? reversible?</li> <li>3. What are goals of treatment?</li> <li>4. What are probabilities of success?</li> <li>5. What are plans in case of therapeutic failure?</li> <li>6. In sum, how can this patient be benefited by medical and nursing care, and how can harm be avoided?</li> </ol>	<p><b>PATIENT PREFERENCES</b></p> <ol style="list-style-type: none"> <li>1. What has the patient expressed about preferences for treatment?</li> <li>2. Has patient been informed of benefits and risks, understood, and given consent?</li> <li>3. Is patient mentally capable and legally competent? What is evidence of incapacity?</li> <li>4. Has patient expressed prior preferences (eg, Advance Directives)?</li> <li>5. If incapacitated, who is appropriate surrogate? Is surrogate using appropriate standards?</li> <li>6. Is patient unwilling or unable to cooperate with medical treatment? If so, why?</li> <li>7. In sum, is patient's right to choose being respected to extent possible in ethics and law?</li> </ol>
<p><b>QUALITY OF LIFE</b></p> <ol style="list-style-type: none"> <li>1. What are the prospects, with or without treatment, for a return to patient's normal life?</li> <li>2. Are there biases that might prejudice provider's evaluation of patient's quality of life?</li> <li>3. What physical, mental, and social deficits is patient likely to experience if treatment succeeds?</li> <li>4. Is patient's present or future condition such that continued life might be judged undesirable by [him/her]?</li> <li>5. Any plan and rationale to forgo treatment?</li> <li>6. What plans for comfort and palliative care?</li> </ol>	<p><b>CONTEXTUAL FEATURES</b></p> <ol style="list-style-type: none"> <li>1. Are there family issues that might influence treatment decisions?</li> <li>2. Are there provider (physicians and nurses) issues that might influence treatment decisions?</li> <li>3. Are there financial and economic factors?</li> <li>4. Are there religious, cultural factors?</li> <li>5. Is there any justification to breach confidentiality?</li> <li>6. Are there problems of allocation of resources?</li> <li>7. What are legal implications of treatment decisions?</li> <li>8. Is clinical research or teaching involved?</li> <li>9. Any provider or institutional conflict of interest?</li> </ol>

**Fig. 2-4.** Four-dimension grid in ethical analysis. An ethical analysis should begin with an orderly review of these four topics. Jonsen, Siegler, and Winslade recommend that the same order be followed in all cases: (1) medical indications, (2) patient preferences, (3) quality of life, and (4) contextual features. This procedure will lay out the ethically relevant facts of the case (or show where further information is needed) before debate begins. It should be noted that this order of review does not constitute an order of ethical priority. The topics of medical indications, patient preferences, and quality of life bring out these essential features of the case. Yet every medical case is embedded in a larger context of persons, institutions, financial and social arrangements. Patient care is influenced, positively or negatively, by the possibility and the constraints of that context. At the same time, the context itself is affected by the decisions made by or about the patient. Adapted with permission from Jonsen AR, Siegler M, Winslade WJ. *Clinical Ethics: A Practical Approach to Ethical Decisions in Clinical Medicine*. 4th ed. New York: McGraw-Hill; 1998: 5–12.

**EXHIBIT 2-3****PELLEGRINO'S TEN-STEP WORKUP**

1. What are the facts—diagnosis, prognosis, treatment?
2. What are the clinical options for action?
3. What does the clinician perceive as his ethical problem with each option?
4. Separate the ethical from the nonethical issues for the clinician.
5. Give moral implications for each option, with moral arguments for and against each choice.
6. On the basis of the above, decide what the right and good thing is to do.
7. Define the nature of conflicts between and among decision makers, moral and nonmoral.
8. Are these conflicts resolvable or negotiable?
9. Reexamine your own decisions in light of all the above.
10. Taking all into consideration, what is in the patient's best interest to the extent that it is ascertainable?

Source: Edmund D. Pellegrino, MD, John Carroll Professor of Medicine and Medical Ethics, Georgetown University, Washington, DC.

egory, and then moves through each of the others in turn, noting where difficulties arise. This commonly used grid stresses factors or realms that must be considered in clinical judgments that most often arise in refusal of therapy during end-of-life decision making. It does not lead to the self-critical ethical analysis found in the "Clinical Ethics Workup Guide" to follow. Jonsen, Siegler, and Winslade covered a whole range of issues with their analysis. Howard Brody focused on a decision tree analytic method to cover similar issues.<sup>21</sup>

### *Clinical Ethics Workup Guide*

Others have targeted a specific patient population for a workup. A good example is Pellegrino's<sup>95</sup> effort to combine both a substantive and procedural framework for analyzing cases that arise in perinatology and neonatology. His ten-step workup (Exhibit 2-3) differs slightly from the next example, but moves, as the latter does, from facts, through values, to a decision and its justification. Similar efforts have been made to target issues in other specialties.<sup>96</sup>

The clinical ethics workup guide described here was developed by the author in 1973, and was first published in 1978.<sup>97</sup> It was used as the basis both for a philosophy of medicine<sup>98</sup> and for the structure of a course.<sup>99</sup> It is reproduced here (Exhibit 2-4) as an example.

### *Mediation Models*

Unlike the previous workups, there is another, newer modality that moves in a different direction. In keeping with utilitarian and narrative ethics, mediation and conflict resolution models tend to try to "open up" the discussion rather than to reach closure right away. In this sense they are like discursive or consensus ethics for which no immediate principle is on the table for discussion other than a commitment to listen and appreciate individual viewpoints. The first step of such an ethical workup is not to avoid conflict, but to own it, not to move away to the realm of principles, but to stay committed to solving small pieces of the problem.<sup>100</sup> This method is based on principles of arbitration and mediation, and promises to help in the clinical management of difficult moral conflicts.<sup>101</sup>

**Strengths.** Workups are perhaps the ultimate teaching and analytical tools in clinical ethics. They demonstrate clearly that ethics is a discipline, and that following a pattern of thought assists healthcare professionals in establishing what values are at risk and how seriously a course of action must be defended. They also have the potentiality for considering all of the human factors in a case, as narrative ethics requires.

**Weaknesses.** In the end, the individuals employing the workup must present a coherent and defen-



## EXHIBIT 2-4

### ETHICAL WORKUP GUIDE

---

The workup is an attempt to distill from the discipline of ethics an essential process of moral reasoning which can be applied to ethical dilemmas in patient care. Other heuristic devices are available as well. The workup itself should not be an object of extensive discussion, but rather the points towards which it guides the discussion of the case itself.

No attempt is made to force you to take one or another ethical position. Instead, you are asked to follow only one absolute: Come up with an ethically justifiable course of action for the patient that meshes with your professional duty to act in the best interest of the patient.

*Step 1: What are the facts in the case?* Be sure to research any medical facts not presented in the case, but possibly relevant to its outcome.

*Step 2: What are the values at risk in the case?* Describe all relevant values of the physicians, patients, housestaff, nurses, hospital administration, the institution, and society. This may not be an exhaustive listing of interests in the case.

*Step 3: Determine the principal conflicts between values, professional norms, and between ethical axioms, rules and principles.* Conflicts can occur among *prima facie* values, absolute values, norms, axioms, rules, and principles, and/or amongst each other. The primary conflict, in the final analysis, is the one you determine it to be. In determining this primary conflict, you should explain if you think principles and values are absolute and whether to be ethical means to act on principle, whether you hold that they are only at first glance, that is, *prima facie* absolute, and can yield to other important values and principles in the case.

*Step 4: Determine possible courses of action, and which values and ethical principles each course of action would protect or infringe.* At this step you will grapple with fundamental moral theory. Are you willing to seek a solution that is based on a single principle? Or are you willing to note that each decision you might make will place some values, principles, etc., at risk? Would you then be satisfied with being a utilitarian, that is, by protecting as many values and principles as possible in the case?

*Step 5: Make a decision in the case.* Decide upon a course of action for resolving the ethical dilemma.

*Step 6: Defend this course of action. Why is "X" better than "Y"?* In defending this course of action, ask whether consensus ethics is appropriate. Is doing what most think is right, necessarily right? Should the decision rest on a single value or principle? Instead should it protect as many values as possible? Or should it rest on the virtue of the caregivers or institutions in which it takes place?

*Respond to each of the following:*

1. Were any values, principles, norms, axioms, rules weighted more heavily than others? If so, which values, principles, etc., were most important to protect and why? If not, was the case decided by protecting as many of the values in the case as possible?
2. Try to identify the type of moral reasoning applied in resolving the case (utilitarian, deontologic, virtue-ethic, care ethics, casuistic ethics, other) and state whether it was used because of your general preference in similar situations or because of its particular applicability to this specific case.
3. Universality test: Would you be willing that your decision and its reasons become universal law, and apply to every similar situation or to yourself? Is this test actually a valid way to determine what is ethical?
4. What role does society play in making this decision palatable? Can you imagine a different society and a different solution? Would the decision require you to change the political system or the way health care is delivered? Are social and political duties a feature of the nature of the profession and clinical judgment? Do you believe in cultural relativism?
5. How does this decision relate to others you have made in your life, in courses, and in actuality as a professional?

---

Reproduced with permission from Thomasma DC, Marshall PA. *Clinical Medical Ethics: Cases and Readings*. New York: University Press of America; 1995: 11–12.



sible moral theory of their own for their position. A good goal of all medical education, then, is that students can articulate and defend their value judgments with their patients, their peers, and in society at large. Those value judgments of necessity involve priorities the individual professional must employ and defend.

In summary, there are no perfect or absolute theories to guide the ethical practitioner through the difficult decisions that must be made for some pa-

tients. Making a serious medical ethical decision can be difficult, not only due to the problem but also to the method or theory employed. Each theory has its strengths and weaknesses. Furthermore, each theory differs from the others, sometimes starkly, sometimes in more subtle ways. This chapter has used the truth-telling case to weave a consistent thread throughout the exploration of ethical theories. Exhibit 2-5 summarizes the resolution of the truth-telling case as it appeared in the chapter.

## EXHIBIT 2-5

### RESOLUTION OF TRUTH-TELLING CASE ACCORDING TO SPECIFIC THEORIES

**Case synopsis:** A 71-year-old widow is dying of end-stage breast cancer. She is heavily medicated but is still able to converse reasonably well. Her husband died 8 years ago; her two sisters are also dead, one of breast cancer. Her one source of comfort has been her only child, who took a leave from his work for 6 months to be with his mother during this final episode of her life. As she slips in and out of consciousness, she asks for her son. She does not know that he committed suicide the day before, leaving a note indicating that he wanted to “be there” with his aunts and father before his mother arrived. Should the patient be told that her son is dead?

Theory	Action	Reason
Utilitarian	Tell patient	Prevents harm to society because it prevents doctors from “holding out hope” when there is none
	or Don’t tell patient	Prevents harm to this patient (unnecessary grief), other patients, and thus to society as a whole
Deontology	Tell patient	Protects the truths essential for social life
	or Delay telling patient	Would still ultimately tell patient, thus protecting truths
Virtue Theory	Back off telling patient	Keeps the patient’s dying process dignified
	or Tell patient	Truth outweighs compassion and is essential for human character
Beneficence-in-Trust	Don’t tell patient; instead emphasize that the bond with patient’s son is not broken by his absence	“Truth” of her relationship with her son is more important than the truth of his suicide
Narrative Ethics	Cannot use this theory to determine an action in this case	Narrative ethics is too complex for a case such as this one, more of the patient’s and son’s story would have to be known
Feminist Ethics	Tell patient	Women understand relationships between mother and child
Unitary Theory	Don’t tell patient	Values of compassion, respect, and protecting from harm outweigh her autonomy, her right to know, and answering truthfully

## CONCLUSION

A brief glance back over the various theoretical domains (public policy medical ethics theories, applied medical ethics theories, and clinical ethics theories) and the levels of moral reasoning (principles, axioms, and rules) is sufficient to show why developing a coherent ethical methodology is complex. This holds true for all walks of life, but certainly so for medicine.

One physician or patient might hold a rights-based ethic, while another might hold a duty-based ethic. Similarly, one might stress the virtues necessary to ensure rules are followed, while another might stress the importance of developing public standards and protocols for ethical treatment. Still another might hold respect for persons as a primary principle, while another would prefer to reason in the tradition of utilitarianism. Because of this moral pluralism, MacIntyre argued that persons in different spheres of moral enquiry, with their different traditions, start from such radically different perspectives that they are almost incapable of conversing with one another.

Nonetheless there is in medical ethics more hope for a better grounding of principles, rules, virtues, and moral psychology than in any other field of ethics. That hope rests on the universality of the phenomena of the experiences of illness and healing and on the proximate and long-term aims of medicine. The advantages of applied medical ethics theories and clinical ethics theories, especially the four-principle approach, can be preserved if they are grounded in the realities of the patient–physician relationship. The discussion in this chapter of problems with the primacy of autonomy demonstrates the reasoning required for giving priority ordering to the principles based on the relationship itself.

Clearly, the proposed alternatives to “principlism” can enrich any theory of medical ethics. None is independent of principles, rules, or obligations. Otherwise any theory succumbs to the debilities of subjectivism and relativism. What is required is some comprehensive philosophical underpinning for medical ethics that will link the great moral traditions with principles and rules and with the new

emphasis on moral psychology. A true moral philosophy of medicine is required. But where to turn?

A radical relativism today is reinforced by the growing awareness of cultural pluralism. As the Western version of ethical theories noted in this chapter comes into contact with other cultures, sharper definitions of points of conflict and agreement can be expected. One of the most important features of the debate about bioethics in the United States today is the growing awareness of the inadequacy of the autonomy assumption. Increasingly, as American bioethicists encounter their colleagues from other parts of the world, the autonomy assumption becomes more glaring as a critically unexamined component of their thought.

Yet experience teaches that persons from different cultures can agree on ethical standards. Such experience calls into question the ultimate importance of resolving fundamental disputes about the nature of persons and the cultural environment, and instead focuses attention on the practical realities that shape common experience.

In bioethics the major struggle has been to direct technology to good human ends. Despite debates in academic spheres about the proper ethical theory, physicians and patients will ask within their relationship, “What is the right and good thing for me to do?” “What counts as ‘the’ good for patients, and what kind of actions will achieve it?” No one making practical ethical decisions can escape these questions.

In the last 30 years, the philosophical underpinnings of medical ethics have undergone a profound development. There is no predicting where this development will lead, especially as individual awareness of other values increases due to almost instantaneous communication with people and thinkers from other cultures. Physicians and other healthcare professionals must be familiar not only with traditional ethical theories, but also with attempts to work out their application to many clinical and other practice situations, such as managed care. After all, medical ethics, like medicine itself, is a fusion of theory and practice. Only in this way will they help establish the medical ethics of the 21st century.

## REFERENCES

1. Campbell CS. The crumbling foundations of medical ethics. *Theor Med Bioeth.* 1998;19(2):143–152.
2. Rothman DJ. *Strangers at the Bedside: A History of How Law and Bioethics Transformed Medical Decision Making.* New York: Basic Books; 1991.

3. Pellegrino ED, Thomasma DC. *A Philosophical Basis of Medical Practice: Toward a Philosophy and Ethic of the Healing Professions*. New York: Oxford University Press; 1981.
4. Marshall P, Thomasma DC, Bergsma J. Intercultural reasoning: The challenge for international bioethics. *Camb Q Healthc Ethics*. 1994;3(3):321–328.
5. Graber GC, Thomasma DC. *Theory and Practice in Medical Ethics*. New York: Continuum Books; 1989.
6. Donovan LJ. Ethics: Our heritage. *Georgetown Magazine*. 1995;27(1):37–42.
7. Engelhardt HT Jr. *Bioethics and Secular Humanism: The Search for a Common Morality*. Philadelphia, Pa: Trinity Press International; 1991.
8. Engelhardt HT Jr. Understanding faith traditions in the context of health care: Philosophy as a guide for the perplexed. In: Marty ME, Vaux KL, eds. *Health/Medicine and the Faith Traditions*. Philadelphia, Pa: Fortress Press; 1982: 163–184.
9. Thomasma DC. Bioethics and international human rights. *J Law Med Ethics*. 1997;25(4):295–306.
10. Kleinman A. Medicine, anthropology of. In: Reich WT, ed-in-chief. *Encyclopedia of Bioethics*. Rev ed, Vol 3. New York: Macmillan; 1995: 1667–1674.
11. Graber GC. Basic theories in medical ethics. In: Monagle JM, Thomasma DC, eds. *Medical Ethics: A Guide for Health Professionals*. Rockville, Md: Aspen Publishers; 1988: 462–475.
12. Pellegrino ED, Thomasma DC. *For the Patient's Good: The Restoration of Beneficence in Health Care*. New York: Oxford University Press; 1988.
13. Mill JS. *Utilitarianism*. Indianapolis, Ind: Hackett Publishing Company; 1979.
14. ten Have H. *Jeremy Bentham: Een quantum theorie van de ethiek. (Jeremy Bentham: A Quantum Theory of Ethics)*. Kampen: Kok Agora; 1986.
15. Bentham J. *An Introduction to the Principles of Morals and Legislation*. Oxford: The Clarendon Press; 1823.
16. Mill JS. *Principles of Political Economy: With Some of Their Applications to Social Philosophy*. Ashley WJ, ed. Fairfield, NJ: AM Kelley; 1987 [reprint of 1909 edition].
17. Kant I. *Foundations of the Metaphysics of Morals*. Beck LW, trans, Wolff RP, ed. Indianapolis, Ind: Bobbs-Merrill; 1969.
18. Fried C. *Right and Wrong*. Cambridge, Mass: Harvard University Press; 1978.
19. Mill JS. *On Liberty*. New York: FS Crofts & Co; 1947.
20. Ross WD. *The Right and the Good*. Oxford: The Clarendon Press; 1930.
21. Brody H. *Ethical Decisions in Medicine*. 2nd ed. Boston: Little Brown & Co; 1981.
22. Veatch RM. *A Theory of Medical Ethics*. New York: Basic Books; 1981.
23. Bennett WJ, ed. *The Book of Virtues: A Treasury of Great Moral Stories*. New York: Simon & Schuster; 1993.
24. Pence GE. *Ethical Options in Medicine*. Oradell, NJ: Medical Economics Company, Book Division; 1980.
25. Pellegrino ED, Thomasma DC. *The Virtues in Medical Practice*. New York: Oxford University Press; 1993.
26. St. Thomas Aquinas. *On Aristotle's Love and Friends, Ethics, Books VIII–IX*. Guway P, trans. Providence, RI: Providence College Press; 1951.

27. St. Thomas Aquinas. *Summa Theologica*. Fairweather AM, trans. Philadelphia, Pa: Westminster Press; 1954.
28. MacIntyre AC. *After Virtue: A Study in Moral Theory*. 2nd ed. Notre Dame, Ind: University of Notre Dame Press; 1984.
29. Pellegrino ED. Toward a virtue-based normative ethics for the health professions. *Kennedy Inst Ethics J*. 1995;5(3):253–277.
30. MacIntyre AC. *Three Rival Versions of Moral Enquiry: Encyclopaedia, Genealogy, and Tradition*. Notre Dame, Ind: University of Notre Dame Press; 1990.
31. McCormick R. Bioethics: A moral vacuum? *America*. 1999;180(17):8–12.
32. Thomasma DC, Kushner T, eds. *Birth to Death: Science and Bioethics*. Cambridge/New York: Cambridge University Press; 1996.
33. Clouser KD, Gert B. A critique of principlism. *J Med Philos*. 1990;15(2):219–236.
34. US Department of Health, Education, and Welfare. National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. *The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research*. *Fed Regist*. April 18, 1979;44(76):23192–23197. US GPO, 1978, DHEW Pub (OS) 78-0012–0014.
35. Beauchamp TL, Childress JF. *Principles of Biomedical Ethics*. 3rd ed. New York: Oxford University Press; 1989.
36. Gillon R. Medical ethics: Four principles plus attention to scope. *Br Med J*. 1994;309(6948):184–188.
37. Gillon R, ed. *Principles of Health Care Ethics*. New York: John Wiley & Sons; 1994.
38. Beauchamp TL, McCullough LB. *Medical Ethics: The Moral Responsibilities of Physicians*. Englewood Cliffs, NJ: Prentice-Hall; 1984: 22–51.
39. Hippocrates. *The Oath in Hippocrates*. Jones WHS, trans. Cambridge, Mass: Loeb Classical Library #147, Harvard University Press; 1972: 299–302.
40. Rawls J. *A Theory of Justice*. Cambridge, Mass: Belknap Press of Harvard University Press; 1971: 302–303.
41. Daniels N. Justice, fair procedures, and the goals of medicine. *Hastings Cent Rep*. 1996;26(6):10–12.
42. Brody BA. Quality of scholarship in bioethics. *J Med Philos*. 1990;15(2):161–178.
43. Holmes RL. The limited relevance of analytical ethics to the problems of bioethics. *J Med Philos*. 1990;15(2):143–159.
44. Gustafson JM. Moral discourse about medicine: A variety of forms. *J Med Philos*. 1990;15(2):125–142.
45. Thomasma DC. The possibility of a normative medical ethics. *J Med Philos*. 1980;5(3):249–259.
46. Engelhardt HT Jr. *The Foundations of Bioethics*. New York: Oxford University Press; 1986.
47. Engelhardt HT Jr, Rie MA. Morality for the medical-industrial complex: A code of ethics for the mass marketing of health care. *New Engl J Med*. 1988;319(16):1086–1089.
48. Childress JF. The place of autonomy in bioethics. *Hastings Cent Rep*. 1990;20(1):12–17.
49. Thomasma DC. Philosophy of medicine in the USA. *Theor Med*. 1985;6(3):239–242.
50. Thomasma DC, Pellegrino ED. Challenges for a philosophy of medicine of the future: A response to fellow philosophers in the Netherlands. *Theor Med*. 1987;8(2):187–204.

51. Pellegrino ED, Thomasma DC. The conflict between autonomy and beneficence in medical ethics: Proposal for a resolution. *J Contemp Health Law Policy*. 1987;3:23–46.
52. Nozick R. *Anarchy, State, and Utopia*. New York: Basic Books; 1974.
53. Engelhardt HT Jr. *The Foundations of Bioethics*. 2nd ed. New York: Oxford University Press; 1996.
54. Kavanaugh JF. Partial truths. *America*. 1997;176(11):24.
55. Loewy EH. Review: Beneficence in trust. *Hastings Cent Rep*. 1989;19(1):42–43.
56. Humphrey D. *Assisted Suicide: The Compassionate Crime*. Los Angeles: The Society; 1982.
57. Bergsma J, Thomasma DC. *Autonomy and Clinical Medicine: Renewing the Health Professional Relation with the Patient*. Vol 2. In: Thomasma DC, Weisstub DN, Kushner TT, eds. *International Library of Ethics, Law, and the New Medicine*. Dordrecht/Boston: Kluwer Academic Publishing; 2000.
58. Thomasma DC. Beyond autonomy to the person coping with illness. *Camb Q Healthc Ethics*. 1995;4(1):12–22.
59. Retera G. *Autonomie en kankerprocessen* (Report: Autonomy and Cancer). Utrecht, The Netherlands: Report of the Institute of Medical Psychology; 1986.
60. Bergsma J. *Doctors and Patients*. Dordrecht: Kluwer Academic Publishers; 1997.
61. Thomasma DC. A contextual grid for medical ethics. In: Bruhn JG, Henderson G, eds. *Values in Health Care: Choices and Conflicts*. Springfield, Ill: Charles C Thomas Publishers; 1991: 117–118.
62. Loewy EH. Physicians, friendship, and moral strangers: An examination of a relationship. *Camb Q Healthc Ethics*. 1994;3(1):52–59.
63. McElhinney TK. Reflections on the humanities and medical education: Balancing history, theory, and practice. In: Thomasma DC, Kissell J, eds. *The Healthcare Professional as Friend and Healer*. Washington DC: Georgetown University Press; 2000: chap 22.
64. Cable News Network-Europe. Special report. March 10, 1999.
65. Loewy EH. *Suffering and the Beneficent Community: Beyond Libertarianism*. Albany, NY: SUNY Press; 1991.
66. Loewy EH. *Freedom and Community: The Ethics of Interdependence*. Albany, NY: SUNY Press; 1993.
67. Churchill LR. Why we need a theory of suffering and lots of other theories as well [commentary]. *J Clin Ethics*. 1991;2(2):95–97.
68. Loewy EH. Advance directives: A question of autonomy. *Camb Q Healthc Ethics*. 1994;3(3):405–410.
69. Brody H. *The Healer's Power*. New Haven, Conn: Yale University Press; 1992.
70. Brock DW. The ideal of shared decision making between physicians and patients. *Kennedy Inst Ethics J*. 1991;1(1):28–47.
71. Nelson HL. Against caring. *J Clin Ethics*. 1992;3(1):8–15.
72. Gilligan C. *In a Different Voice: Psychological Theory and Women's Development*. Cambridge, Mass: Harvard University Press; 1982.
73. Gould CC. New paradigms in professional ethics: Feminism, communitarianism, and democratic theory. *Prof Ethics*. 1992;1(1–2):143–154.



74. Cook RJ. Feminism and the four principles. In: Gillon R, ed. *Principles of Health Care Ethics*. New York: John Wiley & Sons; 1994: 193–206.
75. Gilligan C. *Mapping the Moral Domain: A Contribution of Women's Thinking to Psychological Theory and Education*. Cambridge, Mass: Harvard University Press; 1988.
76. Noddings N. *Caring: A Feminine Approach to Ethics and Moral Education*. Berkeley: University of California Press; 1984.
77. Callahan SC. *In Good Conscience: Reason and Emotion in Moral Decision Making*. San Francisco: Harper Collins; 1991.
78. Flanagan OJ. *Varieties of Moral Personality: Ethics and Psychological Realism*. Cambridge, Mass: Harvard University Press; 1991.
79. Loewy EH. Compassion, reason, and moral judgment. *Camb Q Healthc Ethics*. 1995;4(4):466–475.
80. Jonsen AR, Toulmin S. *The Abuse of Casuistry: A History of Moral Reasoning*. Berkeley: University of California Press; 1988.
81. Kopelman LM. Case method and casuistry: The problem of bias. *Theor Med*. 1994;15(1):21–37.
82. Tomlinson T. Casuistry in medical ethics: Rehabilitated, or repeat offender? *Theor Med*. 1994;15(1):5–20.
83. Wildes KW. The priesthood of bioethics and the return of casuistry. *J Med Philos*. 1993;18(1):33–49.
84. Thomasma DC, Muraskas J, Marshall PA, Myers T, Tomich P, O'Neill JA Jr. The ethics of caring for conjoined twins: The Lakeberg twins. *Hastings Cent Rep*. 1996;26(4):4–12.
85. Jonsen AR, Siegler M, Winslade WJ. *Clinical Ethics: A Practical Approach to Ethical Decisions in Clinical Medicine*. 2nd ed. New York: Macmillan; 1986.
86. Brody BA. *Life and Death Decision Making*. New York: Oxford University Press; 1988.
87. Thomasma DC. Clinical ethics as medical hermeneutics. *Theor Med*. 1994;15(2):93–111.
88. Anonymous. It's getting harder to die if you don't have a written plan. *Natl Catholic Rep*. April 2, 1999.
89. Thomasma DC. Ethical aspects of geriatric care. In: Calkins E, Ford AB, Katz PR, eds. *Practice of Geriatrics*. Philadelphia, Pa: WB Saunders Co; 1992: 136–143.
90. Junkerman C, Schiedermayer D. *Practical Ethics for Students, Interns, and Residents: A Short Reference Manual*. Frederick, Md: University Publishing Group; 1994.
91. Erde EL. Philosopher's Corner. How abstract is my thinking as an ethicist in clinical settings? *Camb Q Healthc Ethics*. 1994;3(2):281–288.
92. Sheehan MN. Why doctors hate medical ethics. *Camb Q Healthc Ethics*. 1994;3(2):289–295.
93. Glaser JW. *Three Realms of Ethics: Individual, Institutional, Societal: Theoretical Model and Case Studies*. Kansas City, Mo: Sheed & Ward; 1994.
94. Siegler M. Decision-making strategy for clinical-ethical problems in medicine. *Arch Intern Med*. 1982;142(12):2178–2179.
95. Pellegrino ED. The anatomy of clinical-ethical judgments in perinatology and neonatology: A substantive and procedural framework. In: Thomasma DC, Marshall PA, eds. *Clinical Medical Ethics Cases and Readings*. Lanham, Md/New York: University Press of America; 1995: 109–118.

96. Ahronheim JC, Moreno J, Zuckerman C. *Ethics in Clinical Practice*. Boston: Little Brown & Co; 1994.
97. Thomasma DC. Training in medical ethics: An ethical workup. *Forum Med*. 1978;1(9):33–36.
98. Thomasma DC. A philosophy of a clinically based medical ethics. *J Med Ethics*. 1980;6(4):190–196.
99. Thomasma DC, Marshall PA. *Clinical Medical Ethics Cases and Readings*. Lanham, Md: University Press of America; 1995.
100. Wagener R, Daniels L, Saulo M. *Introductory Mediation Training: 6 Effective Steps for Successful Healthcare Conflict Resolution*. San Diego, Calif: The Center for Medical Ethics and Mediation; 1995.
101. West MB, Gibson JM. Facilitating medical ethics case review: What ethics committees can learn from mediation and facilitation techniques. *Camb Q Healthc Ethics*. 1992;1(1):63–74.



# Chapter 3

## CLINICAL ETHICS: THE ART OF MEDICINE

JOHN COLLINS HARVEY, MD, PhD\*

---

### INTRODUCTION

### ORIGIN OF THE TERM “CLINICAL ETHICS”

### HISTORICAL BACKGROUND

- Greek Philosophical Influences
- 18th and 19th Century British Philosophical Influences
- Antifoundational and Antiauthoritarian Influences
- Scientific and Medical Influences
- Deconstructionist Intellectual Influences
- Postmodern Philosophical Influences
- Healthcare Professional Influences

### EVOLUTION OF CLINICAL ETHICS AND THE CLINICAL ETHICIST

### METHODS OF CLINICAL ETHICS

### ETHICS CONSULTATION AND ETHICS COMMITTEES

- The Clinical Ethicist
- Ethics Committees

### CLINICAL ETHICS RESEARCH AND TEACHING

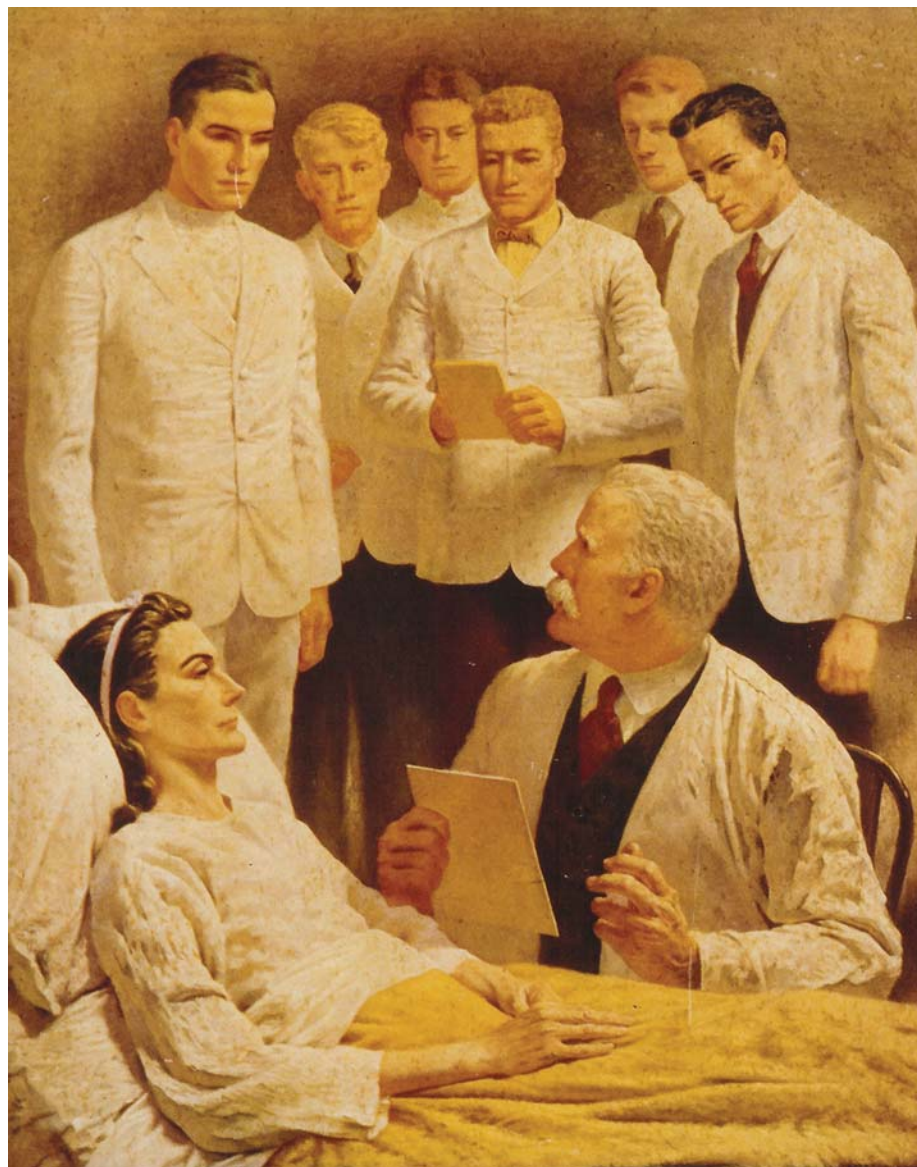
- Clinical Ethics Research
- Clinical Ethics Teaching

### ISSUES IN CLINICAL ETHICS: PRECEDENT SETTING CASES

### CONCLUSION

### ATTACHMENT: LANDMARK CASES IN ETHICS

\*Colonel (Retired), Medical Corps, United States Army Reserve; currently, Professor of Medicine Emeritus, Georgetown University; Senior Research Scholar, Kennedy Institute of Ethics, Georgetown University; and Senior Research Scholar, Center for Clinical Bioethics, Georgetown University Medical Center, 4000 Reservoir Road, NW, #D-238, Washington, DC 20057



J.O. Chapin

*The Medical Education*

1944

The third of seven images from the series *The Seven Ages of a Physician*. This image depicts the education of a group of medical students at the bedside of a patient. Clinical ethics helps to focus the medical treatment on the patient as a person who functions within a complex network of social relationships and personal needs, rather than as just an "entity" with a biomechanical dysfunction.

Art: Courtesy of Novartis Pharmaceuticals.



## INTRODUCTION

The patient–physician relationship exists because patients need help and physicians offer that help. How well that help is delivered depends, in part, on how well the physician understands and practices the art of the patient–physician interaction. In the previous chapter, *Theories of Medical Ethics: The Philosophical Structure*, the many philosophies that influence not only that relationship but also the delivery of healthcare in a societal context have been explored. This chapter narrows that focus down to the clinical encounter between a patient and a physician. That encounter is the true end of medicine. It is situations that arise from that encounter that occupy the field of clinical ethics.

In the *Encyclopedia of Bioethics*, clinical ethics is described by Fletcher and Brody<sup>1</sup> as being concerned with the ethics of clinical practice and with ethical problems that arise in the care of patients. Jonsen, Siegler, and Winslade,<sup>2</sup> in their book, *Clinical Ethics: A Practical Approach to Ethical Decisions in Clinical Medicine*, define clinical ethics as the identification, analysis, and resolution of moral problems that arise in the care of a particular patient. They point out that these moral concerns are inseparable from the medical concerns about the correct diagnosis and treatment of the patient. Pellegrino<sup>3</sup> states that clinical ethics focuses on the clinical re-

alities of moral choices as they are confronted in day-to-day health and medical care. He points out that clinical ethics asks such questions as:

- Is the slippery slope a reality or not?
- What is the psychological effect on physicians and patients in a society that condones euthanasia?
- What moral values will predominate if physicians are put in charge to decide for and against treatment on economic grounds?
- Is autonomy always in the best interests of patients?

Taylor<sup>4</sup> accepts Jonsen, Siegler, and Winslade's definition of clinical ethics but wisely adds that it is an interdisciplinary activity and its major thrust is to work for outcomes that best serve the interests and welfare of patients and their families.

Thus, clinical ethics concerns the clinical practice, involving the identification, analysis, and resolution of moral problems affecting patients, while understanding the clinical realities of these situations in an interdisciplinary context. In other words, clinical ethics concerns itself with the complex moral issues that arise as professionals practice the art of the clinical encounter with a patient.

## ORIGIN OF THE TERM "CLINICAL ETHICS"

How did the term "clinical ethics" enter the lexicon of medicine? Joseph F. Fletcher,<sup>5</sup> in his book, *Morals and Medicine*, is thought to have been the first to refer formally to "clinical ethics." Fletcher, a theological ethicist in the Anglican tradition, acclaimed the liberation of humanity from the constraints of nature by the power of modern medicine, which gave humanity the ability to shape its own destiny and individuals the ability to live a life of their own choosing. It is reported by his son, John C. Fletcher, in the *Encyclopedia of Bioethics*, that his father, Joseph F. Fletcher, referred to the term "clinical ethics" in a commencement address at the University of Minnesota School of Medicine in 1976.<sup>1</sup> He is reported to have said that physicians often responded to his arguments for "situation ethics" in contrast to "rule ethics" by identifying his approach as "clinical ethics" or deciding what to do case-by-case, using guidelines to be sure, but deciding what to do by the actual case or situation of the patient.<sup>5</sup> Fletcher not only introduced a new term, but a new

controversy. It has been debated since he first used the term "clinical ethics" whether this describes a new discipline or a subdiscipline of bioethics.

Siegler<sup>6</sup> argues rather convincingly that it is a new discipline. He says that ethical considerations cannot be avoided when physicians and patients must choose what ought to be done from among the many things that can be done for an individual patient in a particular clinical circumstance. He also argues that the concept of good clinical medicine implies that both technical and ethical considerations are taken into account. Ethics informs the act of clinical decision, that is, "the moment of clinical truth." He insists that clinical ethics must be taught at the bedside and this instruction should be done primarily by clinicians. Siegler introduced an analytic system for approaching clinical-ethical problems at the bedside.<sup>7</sup>

Fletcher's case method is reminiscent of the age-old process of casuistry as discussed by Toulmin.<sup>8</sup> Casuistry is defined by Jonsen and Toulmin as "the

analysis of moral issues, using procedures of reasoning based on paradigms and analogies, leading to the formulation of expert opinion about the existence and stringency of particular moral obligations, framed in terms of rules or maxims that are general but not universal or invariable, because they hold good with certainty only in the typical conditions of the agent and circumstances of the case.”<sup>9</sup> Casuistry also has been described recently by Keenan.<sup>10</sup> He has said that “it is not the answer to a big general question but rather the study of an individual case filled with circumstances that engage our attention and require an ethical evaluation of

the particulars of the single case at hand.”<sup>11</sup> Arras<sup>12</sup> points out that the emergence of casuistical case analysis is a methodological alternative to more theory-driven approaches in bioethics research and education. He argues that casuistry is “theory modest” rather than entirely “theory free.”

Thus, although it has been little more than 20 years since Fletcher introduced the term “clinical ethics,” the field itself is very similar to casuistry, the case-by-case building of an analytical framework that can be applied to the current patient with whom a physician is involved. This framework can be traced back to the earliest days of recorded medicine.

## HISTORICAL BACKGROUND

In the day-to-day rush of seeing patients, maintaining medical records, handling necessary paperwork, and resolving staffing and equipment issues, it is easy for the contemporary practitioner of medicine to let the ancient past be just that—past and not of relevance. And yet that past is the very foundation for most of what physicians think and do in that patient–physician relationship. It is also the foundation of what physicians do *not* do. And it is a foundation that has stood the test of time remarkably well. This chapter will explore the historical background of medical ethics in some detail, because it is only by understanding that past that it may be possible to maintain medical ethics in the face of the evermore rapidly evolving science of medicine.

### Greek Philosophical Influences

The practice of medicine in the Western tradition has been greatly influenced over the past two millennia by Greek philosophical writings contained in the Pythagorean corpus produced between 500 BC to 100 AD, and by the stoic traditions embodied in the writings of some of the later Greek and Roman philosophers of the 1st century AD, particularly Cicero, Seneca, and Marcus Aurelius. When Christianity invaded the wider world of the Roman Empire after 90 AD, Judeo-Christian ethical precepts were engrafted onto and melded with the aforementioned Greco-Roman philosophical thought. During the Dark Ages in the West, the Greco-Roman philosophical heritage was lost but was fortunately saved in the East by Islamic philosophers who preserved the Greek philosophical heritage in the Arabic language in the Islamic centers of learning in the Middle East. Islamic ethical principles, very close to Judaic ones, were thus also introduced into

Western thought because the legacy of Greek philosophy, particularly that of Aristotle, was recaptured for Western thought by the medieval philosophers and theologians such as Thomas Aquinas who became acquainted with the Latin translations of the books in the Arabic language of the great Islamic philosophers—Avarroes, Avicenna, and their followers.

The Pythagorean corpus contained the works of the apocryphal “Father of Greek medicine”—Hippocrates—whose books gave guidance to physicians in their practice concerning etiquette, dress, deportment, relations with other physicians, and the like.<sup>13</sup> An oath attributed to Hippocrates gave precepts to guide the physician followers of his school of medicine in the moral life and the practice of medicine.

The Hippocratic Oath defined the right and the good in medical practice. It outlined precepts that the body of healers, bound together in their common mission of healing, professed and adhered to in their practices. These precepts were beneficence, nonmaleficence, and confidentiality. The oath prohibited abortion, euthanasia, sexual relations with patients, and the performance of medical procedures (surgery) for which the physician was not trained. This oath was very paternalistic. The physician was to benefit the patient to the best of the physician’s ability as he judged what the best interests of the patient were.

The good life for anyone, that is, the virtuous life, was well-depicted by the Greek philosophers, Plato and Aristotle, particularly in the latter’s *Nichomachean Ethics*. The end of life (the “telos”) for these philosophers was human flourishing. Aristotle described the cardinal virtues—courage, temperance, justice, and prudence (practical wisdom)—that, if practiced by the virtuous person,

would lead to a full and flourishing life. These together with the so-called theological virtues later introduced by Christianity—faith, hope, and charity—formed the basis for doing one's work in a moral way, living the virtuous life, and attaining the goal or end of life. These concepts influenced the interpretation of the oath in later times in Western civilization.

The enunciated concepts in the Hippocratic Oath show that ethics has always been an essential part of medical practice in the tradition of Western medicine. Indeed, some medical historians have found that the oath indicates that ethics has always been "intrinsic" to the practice of medicine in the Western tradition.<sup>14</sup> The concepts embodied in the oath have been the basis for judgment upon the morality of every physician's practice over the past 2500 years right down to the mid-20th century.

### **18th and 19th Century British Philosophical Influences**

In tracing the historical significance of the Hippocratic Oath in the practice of medicine, the influence of the 18th century philosophical "Scottish Enlightenment" of Locke, Hume, Mill, and of the British empiricists, such as Berkeley and others, upon the practice of medicine must be considered.<sup>15</sup> The developments in philosophy in the 18th century touched all phases of intellectual life in the British Isles including the discipline of medicine and surgery. One result was that the ethical aspects of practice were codified by Percival,<sup>16</sup> as they had previously been, to a lesser extent, by Gregory.<sup>17</sup> Both retained the Hippocratic concepts. However, they introduced into the ethics of medical practice the concept of the "English gentleman" and his obligations to society in general and to individual human beings in particular.

One of the subjects with which Percival dealt was "therapeutic privilege." This was a euphemism for withholding the truth from the patient and family concerning the medical situation, if, in the opinion of the physician, this knowledge would be detrimental to the patient.

To a patient...who makes inquiries which, if faithfully answered, might prove fatal to him, it would be a gross and unfeeling wrong to reveal the truth. His right to it is suspended, and even annihilated; because, its beneficial nature being reversed, it would be deeply injurious to himself, to his family, and the public. And he has the strongest claim, from the trust reposed in his physician, as well as from the common principles of humanity, to be

guarded against whatever would be detrimental to him....The only point at issue is whether the practitioner shall sacrifice that delicate sense of veracity, which is so ornamental to, and indeed forms a characteristic excellence of the virtuous man, to this claim of professional justice and social duty.<sup>16(pp165-166)</sup>

Percival always counseled physicians in bleak cases "not to make gloomy prognostications ... but to give to the friends of the patients timely notice of danger ... and even to the patient himself, if absolutely necessary."<sup>16(p31)</sup> Percival was struggling with the arguments of Thomas Gisborne, who opposed practices of giving false assertions intended to raise patients' hopes and lying for the patient's benefit. From Percival's perspective, the physician does not lie in beneficent acts of deception and falsehood, as long as the objective is to give hope to the dejected or sick patient. The role of the physician, he asserted, was always "to be the minister of hope and comfort."<sup>16(p32)</sup>

Percival, aware that the Hippocratic Oath did not impose an obligation of veracity, was concerned about the appearance and consequences of acts of deception because they would surely endanger the gentlemanly image of the physician and the character of the physician as a moral agent. But Percival was a utilitarian in his personal philosophy. He consulted Francis Hutcheson, then considered a leading authority in moral philosophy. He was pleased to find that Hutcheson was teaching that benevolent deception in medicine is often the manifestation of a virtue, rather than an act constituting an injury.

No man censures a physician for deceiving a patient too much dejected, by expressing good hopes of him; or by denying that he gives him a proper medicine which he is foolishly prejudiced against: the patient afterwards will not reproach him for it. Wise men allow this liberty to the physician in whose skill and fidelity they trust: Or, if they do not, there may be a just plea from necessity.<sup>16(pp160-161)</sup>

Hutcheson's 18th century paternalism was equaled by that of the most probing British moral philosopher of the 19th century, Henry Sidgwick, who held that veracity can be justifiably overridden by beneficence:

Where deception is designed to benefit the person deceived, Common Sense seems to not hesitate to concede that it may sometimes be right: for example, most persons would not hesitate to speak falsely to an invalid, if this seemed the only way of concealing facts that might produce dangerous shock.<sup>18</sup>

But this very philosophy had ancient roots. Clement of Alexander wrote in the first century AD:

For he [the good person] not only thinks what is true, but he also speaks the truth, except if it be medically, on occasion, just as a physician with a view to the safety of his patients, will practice deception or use deceptive language to the sick, according to the sophists.<sup>19(p127)</sup>

Medical practice in America in the 18th and 19th centuries was quite naturally modeled on Scottish and English medical practice. Thus Percival's writing provided the American physicians an understanding that ethics was intrinsic to the practice of good medicine. American physicians had sought to regulate their fellows in the ethical practice of medicine by the creation of a set of professional standards as early as 1808. A set of influential moral rules modeled on Percival was published by several Boston physicians in that year as *The Boston Medical Police*, as reported by Konold in his history of the early years of American medical ethics.<sup>20</sup>

The first *Code of Ethics of the American Medical Association* (AMA), adopted in 1847, was actually no more than a condensation of Percival's book.<sup>21</sup> The chairman of the AMA's drafting committee for

the code, Isaac Hays, at the time of the presentation of the report to the convention wrote a note accompanying the committee's report: "On examining a great number of codes of ethics adopted by different societies in the United States, it was found that they were all based on that by Dr. Percival, and that the phrases of this writer were preserved to a considerable extent in all of them."<sup>22</sup> The AMA accepted without modification the Hutcheson-Percival paradigm in its 1847 code. This code (as do most codes of medical ethics before and since) entirely ignores rules of veracity (see Exhibit 3-1). In the code the physicians were given discretion over what to divulge to patients and were to exercise good judgment about these matters.

It is interesting to note that at this time a prominent Connecticut physician, Worthington Hooker, while one of the most committed adherents to the AMA Code of Medical Ethics, refused to accept one of its chief tenets, that of therapeutic privilege. Hooker had earned his medical degree from Harvard in 1829 and practiced medicine for 23 years in Norwich, Connecticut before he became Professor of the Theory and Practice of Medicine at Yale University in 1852. He served in that position for 15 years.

Hooker had always been concerned with the

### EXHIBIT 3-1

#### CODE OF ETHICS, AMERICAN MEDICAL ASSOCIATION, 1847

##### CHAPTER I. OF THE DUTIES OF PHYSICIANS TO THEIR PATIENTS, AND OF THE OBLIGATIONS OF PATIENTS TO THEIR PHYSICIANS

##### Article 1 — *Duties of physicians to their patients*

...

4. A physician should not be forward to make gloomy prognostications, because they savor of empiricism, by magnifying the importance of his services in the treatment or cure of the disease. But he should not fail, on proper occasions, to give to the friends of the patient timely notice of danger, when it really occurs; and even to the patient himself, if absolutely necessary. This office, however, is so peculiarly alarming when executed by him, that it ought to be declined whenever it can be assigned to any other person of sufficient judgment and delicacy. For, the physician should be the minister of hope and comfort to the sick; that, by such cordials to the drooping spirit, he may smooth the bed of death, revive expiring life, and counteract the depressing influence of those maladies which often disturb the tranquility of the most resigned, in their last moments. The life of a sick person can be shortened not only by the acts, but also by the words or the manner of a physician. It is, therefore, a sacred duty to guard himself carefully in this respect, and to avoid all things which have a tendency to discourage the patient and to depress his spirits.

Reprinted with permission from: Code of Ethics, American Medical Association, 1847. In: *Encyclopedia of Bioethics*. Vol. 5. New York: Simon & Schuster, Macmillan; 1995: 2639–2640.



threats to the reputation of regular medical physicians presented by quacks and religious sects. He was a firm advocate of professional standards and thus a firm supporter of the AMA's Code of Medical Ethics adopted in 1847. While he was wholehearted in accepting the duty to do good for his patients and to prevent harm to them, he thought that these goals of therapeutics were misplaced when it came to the medical ethics of disclosure. He refused any compromise with telling the absolute truth to a patient about his illness, its prognosis, and the success or failure of therapy. He was the very first American physician who championed the concept of patient autonomy.<sup>23</sup>

Percival's justification of benevolent deception of patients and the absence of a right of the patient to the truth were entirely unsatisfactory to Hooker. He argued that the underlying claims of Percival that hurtfulness results from disclosures are not warranted by clinical experience when the physician has consistently pursued a course of frank and candid discussion. He argued that a nondeceptive means of discussion is generally more satisfactory than a deceptive means. Even when negative reactions to bad news do occur, the effects are not usually as serious to the patient, in Hooker's judgment, as the patient's reaction upon discovery or suspicion of deception by physicians.<sup>24</sup>

William Osler (1849–1919), the first Professor of Medicine at the Johns Hopkins Medical School and probably the greatest clinician that North America has, to the present time, ever produced, was the very embodiment of the "English gentleman" physician described by Percival. He introduced the teaching of medicine to students by the case method done at the bedside of the patient.<sup>25</sup> He felt this was his greatest contribution. In an address to the New York Academy of Medicine in 1902, Osler made a complete statement of his philosophy of teaching medicine:

In what may be called the natural method of teaching, the student begins with the patient, continues with the patient, and ends his studies with the patient, using books and lectures as tools, as means to an end...teach him how to observe, give him plenty of facts to observe and the lessons will come out of the facts themselves. For the junior students in medicine and in surgery it is a safe rule to have no teaching without a patient for a text, and the best teaching is that taught by the patient himself.<sup>25(pp596–597)</sup>

The Johns Hopkins Medical School produced in the first part of the 20th century many teachers of

medicine who subsequently formed a large proportion of the faculties of other American medical schools. These individual physicians took the Oslerian pattern of teaching to their medical schools. Thus, this Oslerian teaching methodology and philosophy has come to dominate American medical school pedagogy even to this day.<sup>26</sup>

Osler never wrote a clear cut philosophy of medicine. His essay on Sir Thomas Browne perhaps comes closest to expressing such a philosophy.<sup>27</sup> It is evident that Osler thought, as did most physicians of his time, that ethics was "intrinsic" to the practice of medicine. Osler, indeed, felt that a physician could not separate the decisions about the scientific questions regarding the patient's disease (the presenting pathological condition) from the ethical questions posed by the patient's illness (the patient's reaction to the disease), and the patient's



**Fig. 3-1.** Francis W. Peabody (1881–1927), Professor of Medicine, Harvard Medical School; Director, Thorndike Memorial Library, Boston City Hospital. A proponent of the Oslerian Philosophy of Medicine at the Harvard Medical School. Photograph: Courtesy of the Alan Mason Chesney Medical Archives, Johns Hopkins Medical Institutions, Baltimore, Maryland.

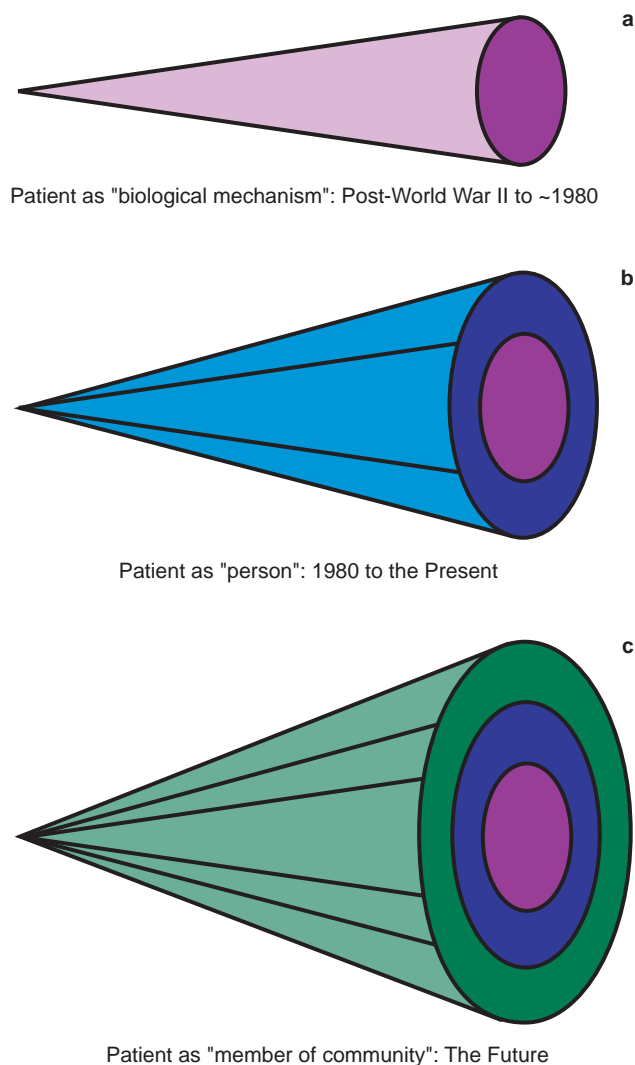




**Fig. 3-2.** Louis Hamman (1877–1946), brilliant expostulator of the “Oslerian” approach to medical teaching at the Johns Hopkins Hospital and Medical School, Baltimore, Maryland. Photograph: Courtesy of John Collins Harvey, MD, PhD.

life circumstances.<sup>28</sup> He was firm in supporting Percival’s concept of “therapeutic privilege.”

Two outstanding and very influential American physicians, Francis Peabody (Figure 3-1) and Louis Hamman (Figure 3-2), each of whom had been very much influenced by Osler and each in his own right a great clinician and a great teacher, the former at the Harvard Medical School and the latter at Johns Hopkins, articulated well “Oslerian” philosophies of medicine. Their expressed philosophies also emphasized that ethics was “intrinsic” to the practice of medicine.<sup>29,30</sup> This “Oslerian” philosophy of medicine generally set the pattern for medical practice that predominated in the United States until the mid-20th century, although in the second and third decades of the century some new ideas began to invade and alter this philosophy. These new ideas had their genesis in the expanding knowledge of disease and the application of a more “scientific” model of medicine. In this model, the disease is



**Fig. 3-3.** Schematic of patient needs. By broadening the medical view of the patient, Dr. Richard Cabot (1868–1939), Professor of Social Ethics at Harvard College (1920–1939) and Physician to the Massachusetts General Hospital (1894–1939), became an advocate for the patient autonomy movement. Rather than simply viewing the patient as a “biological mechanism” (a), which had heretofore been the predominant view of the medical profession, Dr. Cabot expanded the view of the patient to include the needs, wants, and desires of the patient as a unique person (b). While the “biological mechanism” model of the patient had worked reasonably well in the diagnostic phase of the medical interaction, it had not necessarily ensured success in the treatment phase as it failed to understand the patient as a person. Expanding on Dr. Cabot’s idea of patient as person, we would propose a third layer, that of patient as a member of the community (c). Utilizing this three-layered model of the patient as a biological mechanism, a unique person, and a member of a larger group is the best way to ensure maximum benefit to the patient from the patient–physician interaction.

viewed as a physiologic and anatomic derangement that affects the biological organism. The goal of medicine is to reverse the altered anatomy and physiology. This view of medical practice is described as the “applied biology” model in Chapter 1, *The Moral Foundations of the Patient–Physician Relationship: The Essence of Medical Ethics*, of this volume and it predominated until around 1980 when the concept of the “patient as person” began its resurgence.<sup>31</sup> This view has dominated to varying degrees since then and will continue to evolve as the complex interactions between disease, the patient, and society are elucidated (Figure 3-3).

### **Antifoundational and Antiauthoritarian Influences**

In the United States after World War II there developed a strong movement, pervading all aspects of life, that was antifoundational and antiauthoritarian. This movement greatly influenced the philosophy of medicine, medical pedagogy, and the national healthcare enterprise. This resulted in very profound changes in the way medicine was practiced in the United States, as demonstrated by new philosophies of medicine that were developed by physician educators. Changing attitudes of the public also greatly heightened physicians’ concern for medical malpractice that was often brought up at bedside rounds but out of the hearing range of the patient.

The causes for this antiauthoritarian movement were multiple, but can best be understood as historical developments in the context of historical traditions. The historical traditions to which I refer are the basics of American democracy—the Declaration of Independence, the Constitution, and the Bill of Rights. Of profound importance to the antiauthoritarian movement was the 14th amendment (also known as the “liberty” amendment) to the Constitution. What were the historical developments that fueled the antiauthoritarian movement in the United States? Simply put, they were events that cross-cut the entire culture, impacting institutions and values, and ultimately changing the country.

The first of these events was World War II, which had a profound effect upon the population of the United States. For the first time in their lives many individuals traveled to other parts of the country and overseas. This experience enlarged their horizons and opened up new ideas of life for them. Furthermore, much of the population experienced for the first time in their lives excellent medical care while serving in the armed forces in World War II. Returning to civilian life, they wanted the security that came

with the care to which they had become accustomed. The American population began insisting that better medical care be made available to them.

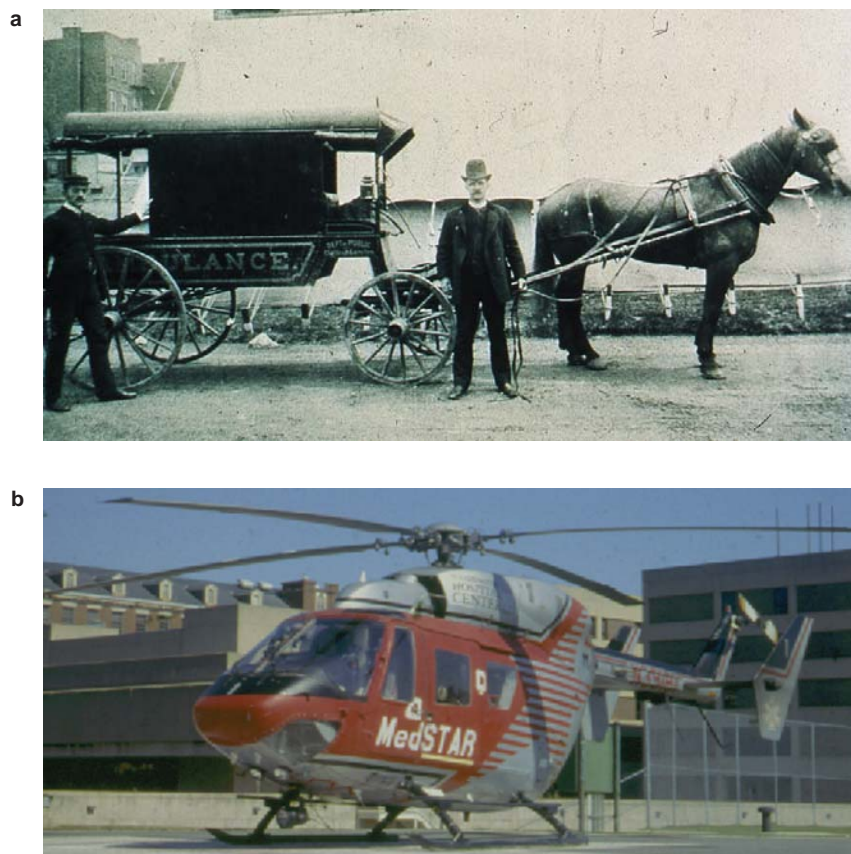
During World War II, the lives of American women were profoundly changed as well. They moved into the market place, earned wages independently of spouses (who often were in the armed forces), and began their liberation from the hearth and home. Women in the nursing profession began seeking greater professional independence, as a direct result of their experiences during the war. (See Chapter 20, *Nursing Ethics and the Military*, in the second volume of *Military Medical Ethics*, for further discussion of the evolution of the nursing profession.)

The events of the 1950s, including the civil rights struggle, set the stage for the “Great Society” program of President Lyndon Johnson in the mid-1960s. Medicare, a federal health program for the elderly, and Medicaid, a federal–state health program for the poor, were enacted into law by Congress in 1965. Equally important was the effect of the Civil Rights Act of 1965, which not only sought to correct the results of past actions, but also forcefully demonstrated that customs, laws, and old ways of thinking could be overturned. The discovery of the anovulatory pill liberated women from the burdens of unwanted pregnancies, and fueled the sexual revolution for both men and women. The success of the civil rights struggle and the discovery of “the pill” accelerated the movement for woman’s liberation that had begun in World War II and reached its zenith in the 1970s and 1980s.

Opposition to the Vietnam War led to the student revolt of the late 1960s and early 1970s, which changed education at all levels. The second Vatican Council (1962–1965) of the Roman Catholic Church altered drastically one of the most authoritative worldwide institutions of the modern era, rendering it less dogmatic and more responsive. This alteration in outlook was an opening to the world and a concern for the here and now. It influenced attitudes toward ethics and morality in other Christian denominations.<sup>32–35</sup> Likewise, the global human rights movement has also resulted in questioning of basic societal values and beliefs. All of these events combined to forever alter the practice of medicine in the western world.

### **Scientific and Medical Influences**

Very rapid advances in medicine began to occur in the 1920s and 1930s, and accelerated after World War II. Medicine became more scientific and technological (Figure 3-4). The physiological mecha-



**Fig. 3-4.** Scientific and technological advances in medical transportation of patients in the past 100 years. Photograph (a) is of John Frederick Moore, MD, standing to the left of the ambulance that was used during his tenure as a general internist at Bellevue Hospital, New York City. Dr. Moore was an 1888 graduate of the “Great Blizzard” class of Bellevue. The class was named after the historic snowstorm that crippled New York City for a number of days and resulted in the deaths of many ill persons who could not be excavated from their locations in time to be transported to hospitals. Photograph (b), a “MedSTAR” helicopter utilized by hospitals throughout the Washington, DC metropolitan area, demonstrates the remarkable progress that has been made in the evacuation of the ill and injured since the days of the horse and carriage. Photograph (a): Courtesy of Dr. Moore’s grandson, Michael McQuillen, MD, Professor of Neurology, University of Rochester, New York; photograph (b) courtesy of the Department of Educational Media, Georgetown University Medical Center, Washington, DC.

nisms of shock were discovered. Blood transfusion and intravenous therapy were perfected. Antibiotics were mass produced. Assisted ventilation, renal dialysis, and artificially administered nutrition and hydration were introduced. The cardiac bypass pump was developed, which permitted open heart surgery. The methodology of tissue typing made organ transplantation practical. Chemotherapy for cancer was introduced and brought increasing success in cure for many different types of neoplasms.

With these scientific advances, medical practice changed. Specialization developed; subspecialization and then superspecialization followed. This brought a depersonalization of care as some physician-specialists in a sense became technicians and no longer cared for the patient as a “whole.” Such physicians became “system,” “organ,” or even “cell” physicians. Nurses declared their independence from the physician. Whole new groups of professional healthcare providers arose—physician assistants; dental hygienists; respiratory, physical, and occupational therapists; specialist nurse practitioners; and mental health and bereavement counselors among many others. These professionals provided excellent services with competence and relieved the

busy physician of some tasks. All these developments, however, contributed greatly to the fragmentation of medical practice.

### Deconstructionist Intellectual Influences

The antiauthoritative movement in social life in the United States also occurred in all phases of the intellectual life. Philosophy as a discipline did not escape. Dissatisfaction with the prevailing academic emphasis on theoretical issues in moral philosophy led to an increased interest in normative and applied ethics. In our pluralistic society the old values defining right and wrong and good and evil were questioned. All moral norms put forth by the old philosophical theories were challenged. Individual and societal beliefs of what was right and wrong varied greatly. Absolutes appeared to be abandoned; deconstructionism prevailed. The alternatives to the old ethical theories were intuition and “gut feeling.” Relativism and subjectivism were the order of the day. “Situation ethics” seemed to be normative. The “good life” was redefined; it became egocentric relativism.

In medicine, basic organizing principles were



challenged. A philosophy of medicine always creates its own understandings about health and disease, the allocations of medical resources, and the relationship of physicians to patients and society. Because new philosophies of medicine were being put forth, there emerged a wide variety of opinions concerning these areas. The ethics of medical practice did not escape. The age-old guiding principle of beneficence (the physician should benefit the patient according to the physician's own judgment and ability), in which the good of the individual was paramount, was replaced by one that shifted the focus considerably toward the autonomy of the patient (the physician should benefit the patient according to the patient's own judgment and wishes). Philosophers, in attempting to draw a clear line between facts and values, challenged the belief that those well-trained in science and medicine were as capable of making the moral decisions as the medical decisions. If there were a significant difference between making a medical decision and a moral decision, philosophers wanted to explore how these decisions are different and what kinds of skills are needed to make each one.

Seldin<sup>36</sup> defined medicine as applied biology, reducing its body of knowledge to biology, chemistry, and physics. Engel,<sup>37</sup> also defining medicine in terms of its knowledge base, developed the biopsychosocial model. Kass<sup>38</sup> developed a theory of medicine, teleological in nature (which stresses the consequences of what people do), claiming that the end of medicine becomes the determining principle defining the knowledge medicine needs. Health equaled wholeness or well-functioning. He insisted that the physician's goal for the patient is the attainment of health.

Phenomenological theories of medicine were also developed. Siegler's<sup>39</sup> philosophy of medicine was process oriented, based on the nature of the patient-physician relationship. He was concerned how clinical medicine worked in the realities of daily practice. Whitbeck<sup>40</sup> developed a societal-cultural theory of medicine. This theory defined health as the psychophysiological capacity to act or respond appropriately in a variety of situations. Pellegrino and Thomasma located their phenomenological philosophy of medicine in the patient-physician encounter, grounding it in virtue ethics, and basing it on the fact of illness, the profession of the physician, and the act of healing.<sup>41</sup>

### Postmodern Philosophical Influences

In the intellectual ferment of the 1960s and 1970s

moral philosophers looked at what had heretofore been called medical ethics. This area did not escape the challenge that deconstruction brought. The old theories of ethics as applied to medicine were found wanting by the moral philosophers. In 1970 Paul Ramsey, a Christian ethicist and professor of religion at Princeton University, published a very influential work, *The Patient as Person: Explorations in Medical Ethics*.<sup>42</sup> This book was based on the Lyman Beecher lectures on medical ethics given at Yale University in April of 1969. He specifically introduced Christian ethical principles into his considerations of the ethical problems physicians faced in dealing with the remarkable advances in medical practice, which had been introduced in the 1940s and 1950s. In his book he also emphasized that the paternalistic practice of physicians had to give way. A patient's concept of the good and right medical decision had to be taken into account by the treating physician for the patient. Only the patient, Ramsey insisted, could make a decision about the right and good moral path for himself. Another publication of Ramsey's, *Ethics at the Edges of Life*, based on the Bampton Lectures given at Columbia University in 1975, had an equally great effect upon medical ethics, particularly those issues concerning abortion and dying.<sup>43</sup> At the same time, other moral philosophers viewing our pluralistic society fragmented by social class, ethnic background, economic status, and religious beliefs, as well as educational and cultural differences, insisted that a common theory for normative medical ethics was needed.

Beauchamp and Childress,<sup>44</sup> members of the faculty of the Kennedy Institute of Ethics at Georgetown University in Washington, DC, put forth a theory of medical ethics based on the *prima facie* principles of autonomy, nonmaleficence, beneficence, and justice. Their theory was based on the earlier work of Ross<sup>45</sup> and to some extent Sidgwick,<sup>18</sup> both of whom theorized that human beings could intuit the right and good. These principles were quickly adopted by interested philosophers and healthcare workers because they were not based on utilitarian or deontological ethical theories nor on any specific religious teaching. They permitted moral strangers to converse with each other quite comfortably. "Principlism" became the basis for clinical ethics. These principles of autonomy, nonmaleficence, beneficence, and justice, so universally adopted, became known worldwide as the "Georgetown mantra."

These principles, they postulated, should always be normative unless there emerged a strong reason to justify overruling them. This theory was attrac-

tive because it was compatible with the older deontological and consequential theories of ethics and even natural law theory (which states that people are inclined to do what is good as they perceive good to be). It also, as Pellegrino points out, “promised to reduce some of the looseness and subjectivity that characterized so many ethical debates when the Hippocratic ethic was challenged as the final work and it provided fairly specific action guidelines.”<sup>3(p1160)</sup>

Veatch<sup>46</sup> has called attention to the increased interest in general in American society in what is called applied ethics, that is, ethics in a real-life context, where the tools of ethics are used to clarify and perhaps solve dilemmas that individuals face. Applied ethics, as defined by Beauchamp, is “the use of philosophical theory and methods of analysis to treat fundamentally moral problems in the professions, technology, public policy, and the like.”<sup>47(p515)</sup> In describing clinical ethics Veatch has narrowed this definition of applied ethics by restricting it in two ways. He limits clinical ethics to applied ethics involving interactions between professionals and lay persons, excluding applied ethics having to do with broad public policy matters and practical problem-solving done by individuals without the benefit of outside consultants. He narrows the term, clinical ethics, even further to ethical deliberations that take place close to the decision-making interactions, such as on a hospital floor or in a physician’s office.<sup>46</sup>

Moral philosophers are still in disagreement about ethical theory and applied ethics. There are those at one pole who believe that bioethics as a discipline cannot expect to achieve intellectual respect unless it is grounded solidly in theory giving justification to its principles, rules, and actions. At the opposite pole are those who maintain that if there be no consensus on theory, nonetheless there can be reasonable moral judgments made and public policy developed based on political, social, and legal agreement by people of prudence and good will.

Theoretical ethics deals with the intellectual foundations of the field. Ethical theory sets patterns that can be applied in analyzing and solving moral dilemmas. The disagreement is whether or not ethical theory must be the basis not only for the analysis but also for the judgments that lead to the solutions of practical moral problems. Skeptics of ethical theory as the basis for making judgments regarding practical moral problems insist that theory is inadequate to the task. Furthermore, other skeptics insist that the method of philosophers in analyzing a problem minutely is not practical when an imme-

diate answer is needed in the clinical situation.

It is clear that this problem of relating theory to practice has not been resolved. This has had import in the way the field of bioethics, and thus clinical ethics, has developed in the last 25 years. The first generation of clinical ethicists were all trained philosophers. They rejected the notion that the foundations for medical ethics could be found in the discipline of medicine itself. They felt, rather, that the foundation was in the discipline of either philosophy or theology. They looked upon medical ethics as a field for fruitful exploration of theory and praxis as part of the developing field of bioethics. Their writings used medical problems to illustrate their theories of moral philosophy.

### **Healthcare Professional Influences**

Professional healthcare workers—for the most part physicians who had always held that ethics was “intrinsic” to the practice of medicine—resented the intrusion of the professional philosopher into “their business.” Physicians were alienated by the professional philosophers’ talking philosophical language. This language was strange to their ears. Physicians bristled when the professional philosophers, referring to unfamiliar theories of the good, criticized physicians’ judgments and actions made on the wards and in the clinics, often in life and death situations. Physicians could not fathom the insistence of the professional philosophers that their paternalism, which had served them well for 2,000 years, suddenly be replaced with a respect for patient autonomy, a concept that seemingly was incomprehensible to them.

Physicians felt that they always kept the best interests of their patients at heart and always made medical decisions (the scientifically right ones) that they felt were consistent with their understanding of their patients’ values (the morally good decisions). They did not understand that this paternalism was anathema to patients who wished to share in the decision-making process when it came to their own treatment. Patients wanted to make the “good” decision; they wanted their physicians to make the “right” decision.

This professional struggle set the stage for the evolution of the field of clinical ethics as a part of applied bioethics. It also brought about the development of that professional whom today is known as the clinical ethicist. Clinical ethicists are usually clinicians (physicians or registered nurses) who are fully qualified within a practice specialty and other professionals who work in a healthcare setting (eg,



attorneys, clergy, social workers, and administrators). They share the desire for advanced education in clinical ethics and allied subjects, but without completing a more traditional graduate degree program in philosophy or theological ethics. Usually

they have had training in a postgraduate fellowship or a master's program in ethics. They share the aim of clinical ethics, which seeks a right and good healing decision and action for a particular patient.

## EVOLUTION OF CLINICAL ETHICS AND THE CLINICAL ETHICIST

After the Nuremberg War Crimes trials the public was revulsed by the knowledge that came to light of the Nazi medical atrocities done in the name of scientific investigation during the Holocaust.<sup>48,49</sup> (See Chapter 14, *Nazi Medical Ethics: Ordinary Doctors?*, and Chapter 15, *Nazi Hypothermia Research: Should the Data Be Used?*, in the second volume of *Military Medical Ethics*, for a further discussion of these issues.) The citizenry was also very shocked at the public revelation of the Willowbrook<sup>50,51</sup> and Tuskegee<sup>52</sup> studies done by reputable scientists in America who seemingly so patently violated individual's rights and freedom. (See Chapter 17, *The Cold War and Beyond: Covert and Deceptive Medical Experimentation*, also in the second volume of *Military Medical Ethics*, for details of American medical ethical lapses.) These revelations presented a whole range of very new and difficult moral problems.

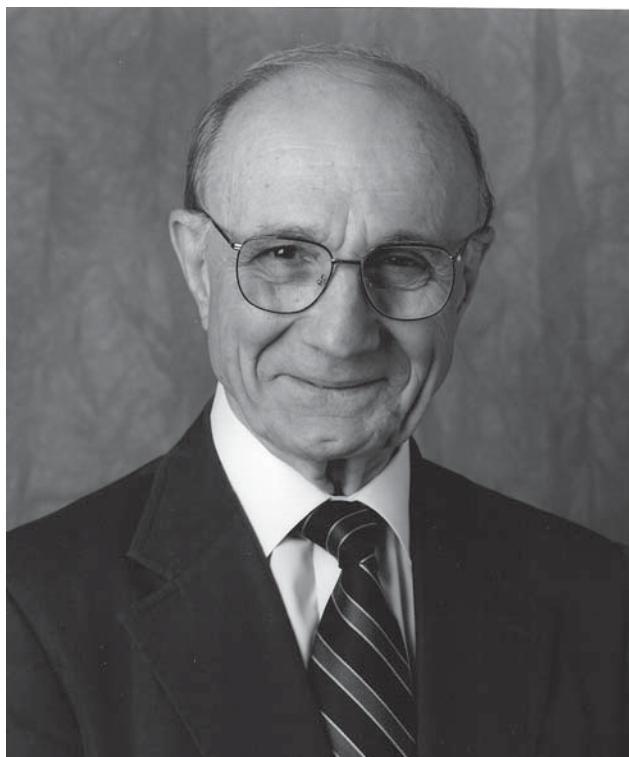


**Fig. 3-5.** Andre E. Hellegers, MD (1926–1979), Founder and Director of the Kennedy Institute of Ethics (1971–1979), Professor of Obstetrics and Gynecology (1976–1979), and Professor of Physiology and Biophysics (1969–1979), Georgetown University Medical Center, Washington, DC. Photograph: Courtesy of John Collins Harvey, MD, PhD.

The cultural upheavals of the third quarter of the 20th century fostered a wide array of social, political, and behavioral changes. The public concern for the violations of patients' rights lead to political action with the creation of the National Commission for the Protection of Human Subjects in the mid-1970s and the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research in the early 1980s. The Karen Ann Quinlan case publicized the need for answers to the problems technology was bringing to clinical medicine.<sup>53</sup> (This case is explored further in an attachment to this chapter that discusses 12 important cases in medical ethics.)

As a result of these new concerns, some responses also came from academia. The Institute of Society, Ethics, and the Life Sciences was founded at Hastings-on-Hudson, New York, by Daniel Callahan, and in 1971, the Joseph P. and Rose F. Kennedy Institute for the Study of Human Reproduction and Bioethics (now simply called the Kennedy Institute of Ethics) was founded at Georgetown University by Andre Hellegers (Figure 3-5). These two institutes, the first in this country, were established as interdisciplinary enterprises to bring medicine, sociology, anthropology, and philosophy together in the study and possible resolution of the problems concerning human values that the extraordinary, though often dehumanizing, technical advances in medicine, genetics, and other life sciences had brought about.

In some other academic medical centers a few faculty members were deeply concerned about the depersonalizing and dehumanizing effects of environmental destruction and high technology upon patient care and the education of younger physicians and other healthcare professionals. A small group of like-minded campus ministers and medical educators in these centers led by Edmund Pellegrino (Figure 3-6), then a Professor of Medicine at Yale University Medical School, organized the Society for Health and Human Values. This group of medical educators and ministers were not professional philosophers nor humanists, but they believed that if the humanities, with their strong emphasis on human values, could be introduced



**Fig. 3-6.** Edmund D. Pellegrino, MD, MACP, John Carroll Professor of Medicine and Medical Ethics, Georgetown University Medical Center, the “father” of modern medical ethics and the rational voice among the babble of the deconstructionists of the postmodern era. Photograph: Courtesy of Mimi Levine, Copyright © 1995.

into medical education, the destructive effects of medical high-technology could be dampened, indeed, if not reversed.<sup>54</sup> The Presbyterian Church's United Ministries on Higher Education, believing in the philosophy of this group of faculty, provided initial funding for the formation of the Society for Health and Human Values. The National Endowment for the Humanities subsequently provided funds that enabled the society to assist medical schools to develop, organize, and introduce into their curricula programs concerned with humanities, human values, and ethics. By the mid-1990s, as a result of these efforts over a decade, almost every medical school in this country and Canada has a formal training program in bioethics, including clinical ethics.

The concern for consideration of human values input into care decisions is now reflected in the directives of the regulating bodies for medical and nursing education as well as in the regulations issued by those agencies licensing healthcare insti-

tutions. In 1983 the American Board of Internal Medicine published a statement on *Evaluation of Humanistic Qualities in the Internist*.<sup>55</sup> In 1987 The Medical Ethics Subcommittee of the American Board of Pediatrics published *Teaching and Evaluation of Interpersonal Skills and Ethical Decisionmaking in Pediatrics*.<sup>56</sup> As of 1995, the Joint Commission for the Accreditation of Health Care Organizations (JCAHCO) requires of institutions accredited by it, clear written policies and procedures concerning issues dealing with human values (eg, orders concerning resuscitation, advanced directives, withdrawal of treatment at the patient's request, and so forth); an established mechanism for dealing with ethical issues; and the right of patients to participate in decision making concerning their own care in accordance with their own values.

Certainly these developments have spawned others. New organizations have been established, such as the Society for Law and Medicine and the Society for General Internal Medicine, to give clinical ethicists an opportunity to meet together, exchange views across disciplines, and expand their knowledge. Journals such as the *Journal of Clinical Ethics*, the *Cambridge Quarterly of Health Care Ethics*, and the *Journal of Medical Humanities*, all dealing with the subject of clinical ethics, have been founded. These give opportunity for clinical ethicists to present their ideas and share their experiences in the identification, analysis, and resolution of ethical problems they have encountered in practice. The journals also serve as a vehicle for the presentation of results of research studies in clinical ethics to a much wider audience than can be reached by meetings or conferences.

The very nature of medical decision making demands that moral choices be made all the time. Many ethical choices can be made intuitively by a patient who utilizes his long-held beliefs, habits, and faith commitments in reaching a decision. In some cases, however, intuition fails and there is no clear answer to the dilemma the patient faces. Occasionally the patient's intuitions may conflict with those of a healthcare professional involved in the patient's care, or with those of a significant person in the patient's family or social circle upon whom the patient depends. Sometimes the medical decision demands serious and structured reflection. Sometimes the decision must be made immediately for the life or death of the patient may depend upon the choice for or against a given treatment or intervention. This type of structured reflection must be done fairly quickly and at the place of treatment,

namely at the patient's bedside. There is neither time nor room for the luxury of lengthy reflection and analysis of theoretical issues. This is when the services of the clinical ethicist are needed, but who should these clinical ethicists be?

An assumption underlying the idea that moral philosophers should be the clinical ethicists is the presupposition that moral philosophers with their basic knowledge of classical moral theory, their previous studies of ethics, and their expert analytical skills and logical thinking are moral experts. Ayer rejects the notion of moral expertise:

It is silly, as well as presumptuous, for any one type of philosopher to pose as the champion of virtue. And it is also one reason why many people find moral philosophy as an unsatisfying subject. For they mistakenly look to the moral philosopher for guidance.<sup>57</sup>

Caplan believes that expertise in ethics consists of knowing moral traditions and theories and in knowing how to apply these theories in ways that contribute to the understanding of moral problems. But he does not believe that this task can be performed only by trained moral philosophers.<sup>58</sup> He believes clinical ethicists should be clinicians. Macklin rejects these skeptical views. She believes that ethical theories are useful in the clinical ethics enterprise. She also offers well-reasoned arguments

that moral philosophers are indeed qualified to deal with issues in clinical ethics as well as to make sound judgments regarding the dilemmas that patients face.<sup>59</sup> Ackerman also believes that there is a place for the moral philosopher in clinical ethics. He insists that the moral philosopher has the knowledge of moral theory and the ability to work out deductively the implications of these theories for human interaction.<sup>60</sup>

In contrast, a purely medical model was developed by Siegler and Singer, both then at the Center for Clinical Medical Ethics at the University of Chicago.<sup>61</sup> In this model the staff ethicist is another practicing medical specialist-consultant. This physician is well-trained in both medicine and philosophy. The consultant reviews the medical record, examines the patient at the bedside, meets the appropriate family members and makes a record of the visit, findings, and recommendations in the patient's chart.

Occasions requiring ethics consultation are occurring with increasing frequency in our evermore technologically-complicated healthcare enterprise. Indeed the American healthcare enterprise has created the need for many more trained clinical ethicists to meet the current demands for analysis and advice regarding value judgments in treatment decisions. This is why clinical ethics has surely come of age so quickly.

## METHODS OF CLINICAL ETHICS

Clinical ethics is distinctive because it begins with the physician-patient encounter at the bedside and ends in a practical judgment that has bearing upon the particular patient. It is an essential part of clinical reasoning. This method of identifying, analyzing, and resolving the ethical issue raised is altogether consistent with the clinical evaluation of any issue in patient care and is essential in order to anchor the decision. Thus, the ethics "workup" is identical to the medical "workup" of the patient.<sup>62</sup> (See Exhibit 3-2 for an example).

All of the facts pertinent to the question are sought. These include the diagnosis, prognosis, and therapeutic options; the chronology of events and time constraints on the decision; reasons supporting claims and goals of current care; and an understanding of the patient's home situation, social milieu, and familial relationships. The specific ethical issue is identified. Often it turns out that the perceived issue is not an ethical one at all, but rather a simple miscommunication, a legal issue, or a prob-

lem related to an economic matter or an administrative ruling.

For analysis the ethical issue must then be framed in terms of several broad areas of concern representing aspects of the case that may be in ethical conflict. It is useful, although somewhat artificial, to dissect the case apart along the lines of the following areas of concern: the appropriate decision maker must be identified and the criteria to be used in reaching clinical decisions must be considered, namely the specific biomedical good of the patient, the broader goods and interests of the patient, and the goods and interests of other parties.

In considering the biomedical good of the patient one should identify those treatments that will advance this good. In addition one should seek options of treatment that will also likely have favorable outcomes for the patient. One should explore factors in the broader aspects of the patient's good such as the patient's dignity, religious faith, other valued beliefs, relationships, and the particular

## EXHIBIT 3-2

### ETHICS WORKUP

---

- I. What are the relevant clinical facts?
  - A. Diagnosis, prognosis, and natural history of each major disease.
  - B. Treatment options for each major disease.
    1. Are they effective (ie, alter the natural history of the disease)?
    2. Are they of benefit to the patient (ie, good in the patient's terms)?
    3. Are effectiveness and benefit proportionate to the burdens?
  - C. State the probabilities, degrees of certainty or uncertainty, for each treatment option.
- II. What are the clinical facts of special ethical relevance? Is the patient:
  - A. Terminal?
  - B. Brain damaged?
    1. In a chronic vegetative state?
    2. Brain dead?
  - C. Ventilator dependent?
  - D. Incapable of making decisions?
  - E. Dependent on artificial feeding?
- III. What are the ethical issues?
  - A. Procedural ethics.
    1. Who should decide?
      - a. Patient?
      - b. Living will?
      - c. Surrogate?
    2. Are there conflicts among decision makers (patient, family, physician, nurses, guardians, administrators)?
    3. Is the conflict ethical? Can it be resolved?
    4. How should the conflict be resolved?
  - B. Substantive ethics.
    1. What ethical duties or principles are at issue (autonomy, justice, beneficence, confidentiality, truth telling, promise keeping, fidelity to covenant)?
    2. Are these in conflict?
    3. What are the ethical obligations of the health professional?
    4. Are the conflicts resolvable?
      - a. Between principles, duties, virtues?
      - b. Between obligations?
    5. How should the conflict be resolved?
- IV. On basis of the above clinical facts and ethical issues, what is your ethical decision?
  - A. Give the ethical reasons for your decision.
  - B. Give the ethical reasons against your decision.
  - C. How do you respond to reasons against your decision?
- V. In consideration of all of the above, make your recommendation.

Source: Edmund D. Pellegrino, MD, John Carroll Professor of Medicine and Medical Ethics, Center for Clinical Bioethics, Georgetown University Medical Center, Washington, DC.



good of the patient's choice. These considerations are very pertinent to the decision at hand. Also, attention must be paid to the goods and interests of others in the distribution of resources. The concerns of other parties, for instance, family, healthcare professionals, healthcare institutions, the laws, and the greater society, must be taken into consideration. Exploration must be made of any differences morally that these considerations make in the decisions concerning this particular case. It is important to note that in deciding about the individual case these concerns of the other parties generally are not given as much weight as that afforded the good of the individual patient whom the health professionals have pledged to serve.

In framing the issue the physician must explain the medical options to the patient or surrogate and, if indicated, make a recommendation or recommendations. The patient or surrogate makes an uncoerced informed decision. Limits to the patient's or surrogate's autonomy include: (a) the bounds of rational medicine, nursing, and social work; (b) the probability of direct harm to identifiable third parties; and (c) the violation of the consciences of involved healthcare professionals. In problematic cases the interdisciplinary team may meet to ensure consistency in their recommendations to the patient or surrogate. In addition, each healthcare professional must establish clearly his professional and moral obligations to the patient, the healthcare team members, the healthcare institution, and other third parties. Certainly conflicts can occur between or among any or all of these people. Among the potential sources of conflict are the<sup>63</sup>:

- definition of patient's "good";
- effectiveness of the treatment, or the ben-

efit/burden ratio;

- economics and quality of life assessments;
- philosophical and/or religious beliefs;
- cultural and ethnic differences;
- physician as patient advocate or social servant or gatekeeper; and
- concept of patient-physician relationship.

In clinical ethics, as in all other aspects of clinical care, a decision must be made. There is no simple formula. The answer will require clinical judgment, practical wisdom, and oral argument. The healthcare professional must ask himself: "What should I do? Where can I get help?" He must analyze the data, reflect on it morally, and draw a conclusion. The healthcare professional must be prepared to explain the decision recommended and the moral reasons for it. Sources of justification include the nature of the relationship between the patient and the healthcare professional; compatibility of the recommended course of action with the aims of the profession (internal morality of medicine); approaches to ethical inquiry, namely principle-based ethics, virtue-based ethics, casuistry, deontology, or theological ethics, and so forth; and the grounding and source of ethics based in reason (philosophical), in faith (theological), or in custom (sociocultural).

The final part of the ethics work up is the critique. The decision that has been made should be evaluated by considering major objections to it. Then one should either respond adequately to these or change the decision. Input of the healthcare worker's other colleagues should be sought when time permits. Some cases can even be taken to an ethics committee for further reflection. Retrospective analysis is also useful in preparing "for the next time" such a situation is encountered.

## ETHICS CONSULTATION AND ETHICS COMMITTEES

Ethics consultation has become a routine activity in healthcare. It has several goals. La Puma and Priest suggest that the primary goal is to "effect ethical outcomes in particular cases and to teach physicians to construct their own frameworks for ethical decision making."<sup>64(p17)</sup> John Fletcher identifies four goals of ethics consultation. These are: (1) to protect and enhance shared decision making in the resolution of ethical problems; (2) to prevent poor outcomes; (3) to increase knowledge of clinical ethics; and (4) to increase knowledge of self and others through participation in resolving conflicts.<sup>65</sup>

### The Clinical Ethicist

The clinical ethicist has service responsibilities. The ethicist may serve as a consultant when called in to a case by any member of the healthcare team, the patient, or the patient's surrogate. The clinical ethicist's task as a consultant is first to review and analyze carefully the patient's record and to collect any other facts that are pertinent to the questions raised by the individual who has called for the consultation. Then the clinical ethicist must clarify issues that are raised by one or another of the above individuals, explicate normative ethics, and clarify



misinterpretations of institutional policies pertinent to the problems of the particular patient. Finally the clinical ethicist must give a considered opinion regarding the question that was raised. This is usually done in a group meeting with members of the healthcare team that may or may not include the patient or the patient's surrogate. The task of the clinical ethicist is not to make a decision or a ruling. The task is purely advisory—to render an ethical opinion on the question that has been raised.

When the clinical ethicist is called into consultation by any of the members of the healthcare team (other than the physician-in-charge of the case) or the patient or the patient's surrogate, it is imperative that the clinical ethicist contact the physician-in-charge to inform him that the consultation has been requested and will be accomplished. This courtesy is necessary because in all healthcare institutions the physician-in-charge has the final responsibility for the patient while that patient is in that particular institution. It is always the physician-in-charge who is the physician of record and as such under the healthcare institution's governance structures always has the final authority as long as he remains the physician of record for that particular patient.

### **Ethics Committees**

The clinical ethicist also has a responsibility to serve as a member of the institution's ethics committee. Ethics committees are a recent development in the healthcare enterprise. The concept of an ethics committee was introduced by the Supreme Court of New Jersey, which in its decision in the *Quinlan* case<sup>66</sup> pointed out that the courts are really not the place to settle ethical questions in the clinical care of a patient. The decision handed down said that if disputes in the care of patients cannot be resolved among the various healthcare providers, the patient, and the patient's surrogate, those disagreements concerning ethical issues should be referred to the institution's "ethics committee" for clarification and advice. This was the genesis of the concept of an ethics committee in a healthcare institution.<sup>67</sup>

Now ethics committees are a part of the governance structure of most healthcare institutions. Guidelines for their operations in hospitals were put forth by the Judicial Council of the American Medical Association.<sup>68</sup> They are discussed by the Joint Commission for the Accreditation of Health Care Organizations in their accreditation manual.<sup>69</sup> The committee is usually composed of members of the staff from different disciplines (medicine, nursing,

social work, pharmacy, and pastoral ministry, for example) in addition to the clinical ethicist in the healthcare facility, if the facility has an ethicist. Some institutions have respected, virtuous members of the community it serves as members of the committee. Such membership, however, creates some concerns for the issue of confidentiality. Some institutions also include the institution's legal counsel in the membership of its committee.

This latter practice is questionable. Often the legal counsel has loyalties to the institution first and foremost so the attitude and opinion taken by counsel in the deliberations of the committee may reflect the best interests of the institution rather than those of the patient. It is a common axiom that what is legal is not necessarily moral and what is moral is not always legal. This conflict of interest can be avoided by not appointing the legal counsel to membership on the committee. The counsel can review the activities of the ethics committee and give advice on them to the chief operating officer directly. In this way he serves properly as a staff officer in the administrative structure.

The ethics committee in any institution may have many different functions depending upon the charge given to it by the governing authority. Usually these committees will service institutions well by reflecting carefully upon the foundations of medicine, healthcare delivery, and healthcare institutions. They help articulate the values operative in contemporary medicine and, hence, their implication for medical practice, through the development of policies for the healthcare institution, consultation for healthcare seekers and providers, and education for the institution, individuals, and the community. They may help to resolve some of the difficult issues presented, particularly at the edges of life. However, their broad mandate goes beyond death and dying and is a place for the reflection and articulation of the intrinsic values of medicine and healthcare delivery in contemporary society. In sum they: (a) educate staff and patients, (b) assist in developing institutional policy, (c) provide a nonjudicial mechanism for the review and resolution of cases involving conflicts, and (d) directly influence patient care decisions.<sup>70</sup> Some commentators<sup>4,71</sup> have cautioned that committees overstep their bounds, however, when they begin to participate in patient care decisions. These commentators strongly recommend that ethics committees should be advisory only. Siegler concurs, stating that definitive medical decisions must be the responsibility of the attending physician or surgeon.<sup>72</sup>

In providing assistance to resolve conflicts in cases in the institution, the ethics committee does ethics consultation. This work can be either a retrospective or prospective analysis. This model of ethics consultation differs from the Chicago model previously described. The advantage of the group over the single consultant, the ethicist, is that it can give a plurality of thought to the problem and gives a joint opinion. The committee can give advice that is the best-considered judgment of the members of the committee, but of course the advice is not necessarily a unanimous opinion of all members of the committee. It must be remembered that opinions for the solution of ethics questions are not matters to be settled by a majority vote. On the negative side, mobilizing a large committee is time consum-

ing. It is also hard for a large group to meet at the patient's bedside. In addition a large, relatively impersonal, group may be intimidating to the patient and family.

The committee may not wish to do this consultative work as a committee of the whole. It may designate a few of its members on a rotational basis (always including among them, however, the institution's ethicist, if there is one) as a subcommittee to meet with the healthcare team members, the patient, and the appropriate family members. This mixed model of consultation offers some advantages. It is smaller. It can respond rapidly. It may meet easily at the patient's bedside. It is also potentially less intimidating to the patient and family than the larger group may be.

## CLINICAL ETHICS RESEARCH AND TEACHING

### Clinical Ethics Research

Research in clinical ethics aims to describe and evaluate the ethical considerations in current clinical practices. (See Chapter 4, *The Science Behind the Art: Empirical Research on Medical Ethics*, for a further discussion of research in this field.) Singer (now at the University of Toronto), Siegler, and Pellegrino<sup>73</sup> describe three essential elements of this research: (1) it focuses on the content of clinical ethics; (2) it does not have a unique method but employs the methods of a diverse array of disciplines including philosophy, theology, law, social sciences, decision analysis, and clinical epidemiology among others; and (3) it produces and disseminates new knowledge through scholarly publication.

Clinical ethics research can be divided into two broad categories—theoretical and empirical. Theoretical research tries to identify conceptual issues and coherent arguments for defensible recommendations for ethically acceptable practice. A good example of the former is Sulmasy's consideration of the specific values of clinical medicine.<sup>74</sup> Empirical research involves the collection and analysis of clinical data describing the way clinical decisions are made, the values that are used, and where, by whom, and under what conditions. Empirical studies do not resolve normative ethical issues of what action is right or wrong in a particular circumstance. They can, however, contribute to a better understanding of the normative issues that lie at the heart of clinical ethical dilemmas. The study<sup>75</sup> that Sulmasy and his colleagues have done on the education of house officers in clinical ethics is a good

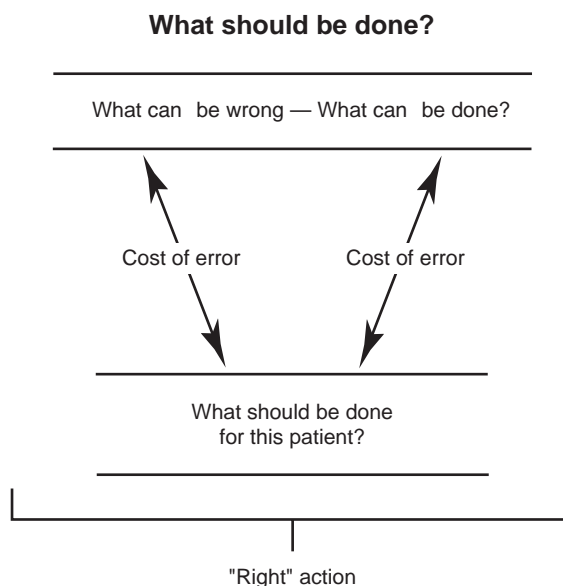
example of this type of empirical research in clinical ethics. In clinical ethics theoretical and empirical research are synergistic.

### Clinical Ethics Teaching

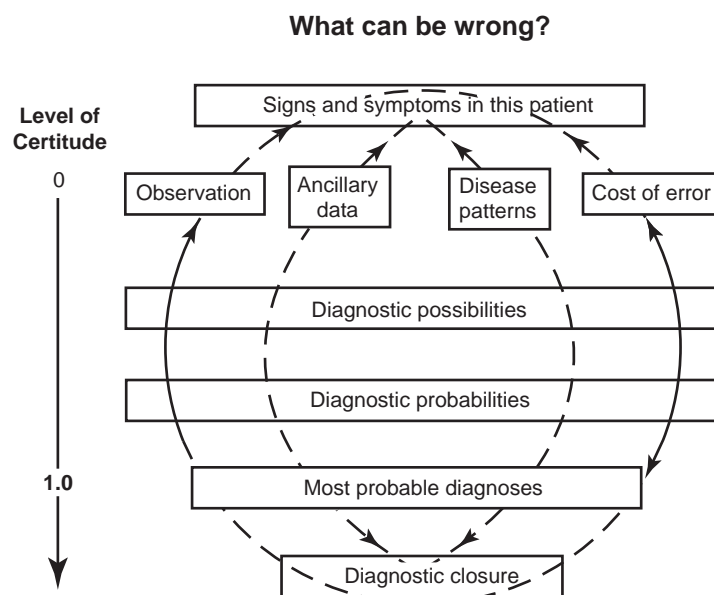
The goal of teaching clinical ethics is to improve the quality of patient care in terms of both the process and outcome of care. The necessity of teaching clinical ethics rests in the unchangeable fact that any medical decision involves two components—a technical decision requiring the application of knowledge of basic and clinical sciences to the patient's current problem and a moral component demanding that the technically correct decision be also morally defensible. The technical component tells us what can be done medically; the moral component tells us what ought to be done for this particular patient. In the paternalistic practice of medicine of the past, the choice of therapy was regarded as synonymous with the medical good of the patient. This assumption no longer obtains. The objective determination of the patient's medical needs now must be reconciled with the patient's values and perceptions of what is good and with the patient's life situation, religious beliefs, and ethnic and cultural values (Figure 3-7).

To accomplish these goals Pellegrino, Siegler, and Singer<sup>76</sup> insist that both cognitive and behavioral aspects of ethics should be taught. The cognitive skills include recognition and definition of the ethical issues; identification of the principles, duties, or obligations involved; clarification of real or potential conflicts among principles; ways of resolv-

**Fig. 3-7. (a)** What questions must be addressed and with what reasoning modes? When a person becomes a patient, a whole series of questions becomes crucial for him or her as a knowing and valuing being. What is wrong? Is it serious? What will it mean to me? Can it be cured, and by what means? Is the cure worthwhile? What will it cost? What *should* I do? These and corollary questions must be addressed if the process of clinical judgment is to be a complete and authentic medical judgment. They are reducible to three *generic* questions: *What can be wrong?* *What can be done?* *What should be done for this patient?*



**Fig. 3-7. (b)** What can be wrong? This is the diagnostic and classificatory question. Given the signs and symptoms presented by this patient, what classificatory patterns fit best? Which is most probable, and with what degree of certainty? The input data of signs and symptoms must be reliably observed, standardized, and specified; the classificatory patterns must be equally reliably determined. *Diagnostic closure* can be obtained [when] all essential criteria for a diagnosis have been met. These rigorous conditions are only rarely satisfied in clinical reality. Since clinical medicine deals with individuals, decision theory must also take into account the specificity of individual bodies—a difficult if not impossible task. Thus, even when the rules of probabilistic logic are rigorously applied, the diagnostic conclusions are still open to question.

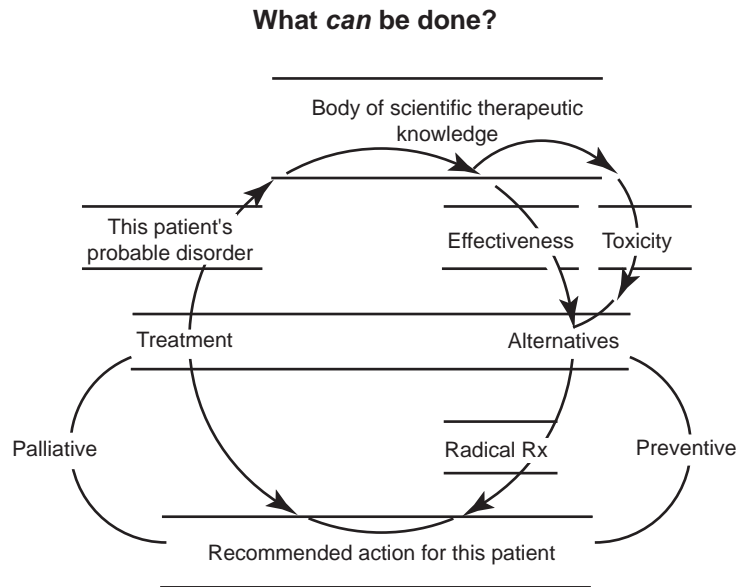


**Fig 3-7.** The anatomy of clinical judgments. Adapted with permission from Pellegrino ED, Thomasma DC. *A Philosophical Basis of Medical Practice*. New York: Oxford University Press; 1981: 125–135.

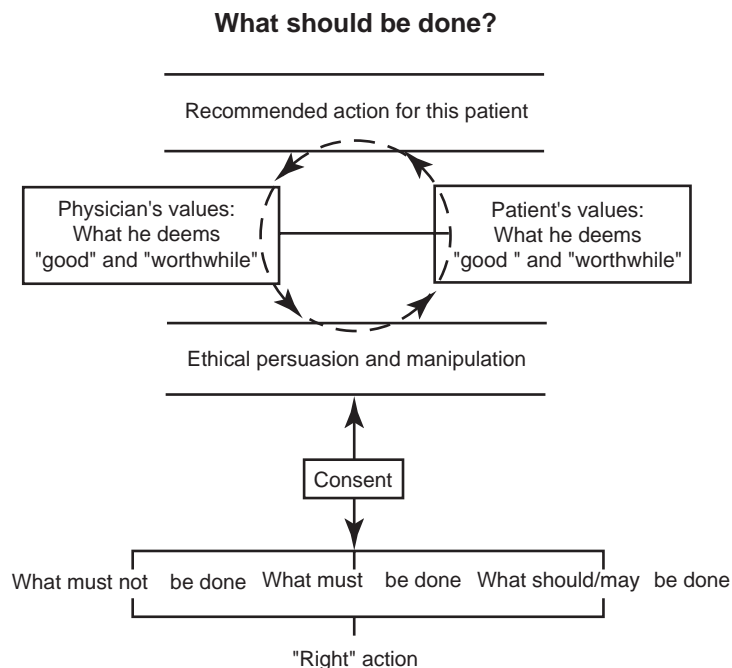
ing such conflicts; attainment of a moral choice; formulation of objections to such choice and reasons for the objections; and formulation of counter-arguments for modification of the decision on the basis of these considerations. Behavioral skills are also needed to be effective in caring for patients. Physicians are expected to know how to deal with patients and families in a thoughtful and sensitive

way when they initiate discussions that have life and death import.

Besides the cognitive knowledge and behavioral skills, Pellegrino and colleagues<sup>76</sup> point out that attention must be paid to the kind of a person the physician should be. Some development of the physician's character is in order. Ethics demands that the physician should be a virtuous person who



**Fig. 3-7. (c) What can be done?** This is the therapeutic question. Once some decision has been made about the nature of the patient's problem, what kinds of actions could be taken to remove or ameliorate the probable disorder? The choice of what action to recommend involves far more questions of value than diagnosis. The closer we come to the end of the process of clinical judgment—the right action—the less useful and less available is the scientific model. Reasoning becomes, in smaller part, scientific and probabilistic, and in larger part, dialectical—arguing one alternative against another without recourse to new factual data.



**Fig. 3-7. (d) What should be done for this patient?** Once it is decided what the probable diagnosis is, and what treatment can be expected to be most effective and least harmful, the final question in clinical judgment is, *should* the treatment be used with this patient, and what alternatives can be offered? The right action—the best one for a given patient—is not always synonymous with the logically or scientifically deduced action. The last question in the sequence then—what should be done?—the capstone question, which completes the whole structure, is the most prickly. Scientific and semiscientific conclusions of varying degrees of certitude are examined under a light strongly tinged with moral hues. The accessibility of the questions to scientific modes of reasoning declines, as does the degree of certitude, as we move from determining what *is* wrong, to what *can* be done, to what *should* be done. The optimization of several kinds of uncertainty remains a central concern even when the conclusions are scientifically defensible.

is honest, trustworthy, caring, compassionate, and self-effacing, and who always puts his patient first before all else. Virtue or character is hard to teach.<sup>77</sup> This makes the virtuous and ethical physician role model essential to the enterprise.

Pellegrino, Siegler, and Singer further emphasize that the teaching of clinical ethics should be integrated into all levels of medical school teaching, in

the residency and fellowship training, and in continuing education of physicians. They insist that it be clinically based, case focused, continuous over the medical curriculum, coordinated with other subjects taught, and should have the active participation of clinicians.<sup>76(pp177–178)</sup> Medical schools are for the most part incorporating ethics training into their curricula. In the preclinical years, usually a formal



course in ethics is presented concerning the philosophical foundations of ethics. It is case based. In the clinical years, ethical aspects of case presentations may be considered on regular rounds, in grand rounds, and in case conferences on each of the major clinical services. In the residency experience, clinical ethics is best taught by supervised experience, increased responsibility, and discussion at rounds.

The best teacher of behavioral skills and character traits is a good and virtuous practicing physician. Such a physician is an excellent role model for the younger physician. Such a physician in this day and age, however, is usually not able to articulate the philosophical foundational aspects of clinical ethics necessary to teach the cognitive aspects. Now increasingly such practicing physicians are getting formal training in ethics in various programs that the bioethics centers established in medical centers in the past two decades now offer. The Kennedy Institute of Ethics at Georgetown University has presented a short intensive introductory course in bioethics for the past 20 years. Many physicians have taken advantage of this opportunity for basic learning. The Center for Clinical Ethics at the University of Chicago has trained approximately 30 physician-fellows in the past decade who have returned to appointments in 17 medical centers in the United States and in Canada.<sup>76(p179)</sup> Excellent programs for the practicing physician are also presented by many other centers. Among these are the Medical Humanities Program at Michigan State University; the Department of Human Values and Ethics at the College of Medicine, University of Tennessee; the Center for Biomedical Ethics at the University of Minnesota; the Department of Humanities at the College of Medicine, Pennsylvania State University (The Milton S. Hershey Medical Center); and the Medical Humanities Program at Vanderbilt University, Nashville, Tennessee.

Physician-ethicists, of course, are not the only individuals who can teach clinical ethics. Trained philosopher-bioethicists who are comfortable in the clinical setting are up to this task and have much to contribute on clinical rounds and at the bedside. Increasingly nurses, medical social workers, and, to a lesser extent, pharmacists are being trained in clinical ethics, usually in masters degree granting programs in medical humanities such as the ones referred to previously. These individuals also can effectively teach clinical ethics. They bring a refreshingly different attitude and viewpoint to the bedside that is very beneficial in its wider horizon related to healthcare than the purely medical one.

There are obstacles to overcome in teaching clinical

ethics in medical schools. The modern medical curriculum is very full. There is precious little time to add new subjects; the other disciplines do not like to relinquish any of their allotted time for teaching. The 20 to 25 hours of formal course work in biomedical ethics that is allotted in most medical schools in the preclinical areas is barely enough time to cover the field adequately. The teaching of clinical ethics as a natural part of case discussion can be very well incorporated into bedside teaching in the clinical years and in residency training. The obstacle here is the lack of clinicians formally trained in clinical ethics to teach it properly. Many clinicians feel that they can teach clinical ethics, and indeed well, because they consider themselves to be basically virtuous and ethical persons. While they may be good role models because they may intuitively act ethically at all times, for the most part they do not have adequate education in the skills of ethical analysis and self-critical examination. A very serious obstacle for the teaching of clinical ethics also comes from the basic scientists and those clinicians whose philosophy of medicine is primarily based on the biological model.<sup>78</sup> If one cannot, as Pellegrino says, "weigh, smell, feel, measure, and subject knowledge to observation and experimentation, it is not knowledge but merely opinion and therefore not worth teaching."<sup>79</sup>

The basic curricular goals for medical ethics were considered by a group of prominent medical ethicists in a conference held at the Medical School of Dartmouth College in July of 1983. A full report of that conference was published in the *New England Journal of Medicine* in 1985.<sup>80</sup> This group of ethicists felt that clinical ethics had been sufficiently developed and the need for ethical knowledge and skills in medicine sufficiently compelling to justify their recommendation that all medical schools require basic instruction in the subject. They reasoned that the basic curriculum should go beyond just sensitizing students to ethical problems in medicine. They insisted that the curriculum should provide the students with "the conceptual moral-reasoning, and interactional abilities to deal successfully with most of the moral issues they would confront in daily practice"<sup>80(p253)</sup> as physicians.

This group of medical ethicists suggested that the basic curriculum should include certain items described in terms of abilities that the group felt every practicing physician should have. These abilities were: to identify the moral aspects of medical practice; to obtain a valid consent for, or a valid refusal of, treatment; to have knowledge of how to proceed if a patient is only partially competent or incompe-



tent to consent to or refuse treatment; to have knowledge of how to proceed if a patient refuses treatment; to decide when it is morally justified to withhold information from a patient; to decide when it is morally justified to breach confidentiality; and to have knowledge of moral aspects of the care of patients with a poor prognosis, including patients who are terminally ill. This report has had a lasting effect upon American medical education. Now almost all the medical schools in this country teach, in some form or other, clinical bioethics courses that include these topics among others.

House staff have to deal on a day-to-day basis with the many difficult and pressing ethical problems that earlier generations of house staff and their physician-mentors never had to deal with. The marvelous advances in medical technology in the last half of the 20th century have had a twofold effect in medicine. They have given us the power to treat and cure many formerly untreatable and incurable conditions but they have also brought with them many new clinical ethical problems that must be considered and solved. On a daily basis, house staff, working with attending physicians, must recognize, evaluate, and resolve clinical-ethical dilemmas. (See Figure 3-7, which details a suggested process to handle these dilemmas.)

Medical educators also have increasingly recognized the importance of teaching clinical ethics in postgraduate medical training. The American Board of Internal Medicine emphasized that there is "a major responsibility of those training residents in internal medicine is to stress the importance of the humanistic qualities in the patient/physician relationship throughout the residency. The certification process must assure that this responsibility has been undertaken."<sup>81(p722)</sup> To this end, not only in internal medicine, but in residency training programs of other clinical disciplines such as critical care medicine, anesthesiology, surgery, obstetrics/gynecol-

ogy, pediatrics, neurology, and neurosurgery, training programs in clinical ethics have been developed. In many academic medical centers such educational programs in clinical ethics take the form of "ethics rounds."<sup>82,83</sup>

Kong, Singer, Lynch, and Siegler<sup>84</sup> have described in great detail ethical teaching rounds on the Obstetrical Service of the Toronto Western Hospital associated with the Medical School of the University of Western Ontario, Canada. Such rounds are led by a physician-ethicist faculty member on a weekly or biweekly schedule. Attendance of all residents, interns, and medical students assigned to the service is expected. Often present, too, are members of the "clinical team"—nurses, social workers, other healthcare personnel dealing with the particular patient under discussion such as rehabilitation technicians, respiratory therapy technicians, and dietitians, and members of the pastoral care service. The goal of these rounds is to examine and evaluate in a systematic way the ethical concerns arising in the care of a particular patient. As a result, practical and immediate clinical ethical problems, perceived or real, may be identified by any member of the care team. Different ethical approaches to the topic may be considered. Various suggestions for ethically sound resolution may be offered by the attendees. The physician-ethicist conducting rounds acts as a general resource person. Such leadership assures that appropriate ethical theories are considered, queries are answered, pertinent landmark cases from the literature are brought to the attention of the participants, all various ethical positions are examined fully and critically, legal concerns are addressed, and actions suggested by the house staff and students for handling the ethical dilemmas are thoughtfully discussed and critiqued. In this way clinical ethics may be brought into the resident training program of any clinical service in a way that is familiar and "feels natural" to the house staff and students.

## ISSUES IN CLINICAL ETHICS: PRECEDENT SETTING CASES

Situations do arise, and now not infrequently, in clinical practice that result in disagreements between the physician and patient, between the patient and a significant family member, among members of the healthcare team, or between the patient and the healthcare institution providing for care. This is particularly true now in the so-called "age of autonomy." When "paternalism" was the ruling ethos in medical practice and when nursing ethics was defined in 1893 by Lavinia Dock, RN (Exhibit 3-3), one of the leading educators in nursing, as:

the nurse's whole duty, loyalty and obedience begins and ends in subordination to the doctor. Beyond this, there is no horizon, and outside of this, she has no reason for existing....<sup>85(p41)</sup>

then caring for patients seemed to many physicians much easier than at present. When disagreements do arise attempts to resolve them may be made by consultation with a clinical ethicist or the institution's ethics committee. Often it turns out that perceived differences result from poor communi-

### EXHIBIT 3-3

#### LAVINIA DOCK, RN

Lavinia Dock, RN, was graduated from the Bellevue Hospital's School of Nursing in 1886. She was one of the founders of public health nursing in New York City. At one time in her long career she became assistant to Isabelle Hampton Robb, RN, the Superintendent of Nurses at the Johns Hopkins Hospital. There, in collaboration with M. Adelaide Nutting, RN, she wrote the first definitive history of nursing—*A History of Nursing: The Evolution of Nursing Systems from the Earliest Times to the Foundation of the First English and American Training Schools for Nurses*.<sup>1</sup> In a publication she wrote on nursing ethics she said: "The wonderful thing about the study of ethics...is that it has no end. It expands indefinitely as we go forward in it.... so will our consciences not allow us to remain contented, today with the little duties which yesterday satisfied us..."<sup>2(p56)</sup> Were she alive today, she would most certainly be in the forefront of the movement that nursing is an independent profession with its own ethics. She would be quite supportive of the abandonment of the concept of paternalism in health care and would be a great proponent of autonomy as most leaders in the field of nursing are today.

(1) Nutting MA, Dock LL. *A History of Nursing: The Evolution of Nursing Systems from the Earliest Times to the Foundation of the First English and American Training Schools for Nurses*. New York: Putnam; 1907. (2) Dock LL. Ethics or a code of ethics? In: *Short Papers on Nursing Subjects*. New York: ML Longway; 1900: 37–57.

cation between or among patient, family members, attending physician or members of the healthcare team. An ethics consultation can often expedite communication or clarify issues for better understanding on the part of all the parties so that resolution of the conflict may be obtained.

In the literature of clinical ethics there have been many complicated cases reported where the suggestions for the resolution of differences between and among the contending parties have aroused widespread admiration and won high praise from healthcare professionals and other clinical bioethicists. The wisdom embodied in the solutions of these specific cases has been precedent setting. Such cases also have become paradigm cases. These cases are often referenced by clinical ethicists. Such cases form a "corpus of precedents" and are cited in opinions that clinical ethicists may render when asked to assist in the resolution of controversies concerning the good and right medical choices for *this* patient at *this* time under *these* particular circumstances.

These cases are the paradigm cases frequently utilized by clinical ethicists in attempting to give opinions for the resolution of conflicts that appear to be similar—a modern day recovery of casuistry. These are the landmark cases with which every clinical ethicist should be familiar. The issues raised in these cases touch upon many of the important areas in clinical bioethics today.

How are these cases resolved? What are the processes and concepts involved? What can be learned from them? First, one must understand that

just as there are limits on what physician's may do, there are also limits on what patient's may do, or request be done. For instance, neither the patient nor the physician can intentionally harm third parties. In addition, a patient cannot insist that a physician act in a manner that would violate the physician's moral beliefs. And a patient should not ask a physician for assistance in committing suicide. At the same time, the physician is constrained from practicing "therapeutic privilege" (the withholding of information deemed harmful to the patient) even though there may be times when a physician believes that the information may be very distressing for the patient.

From this discussion one can see that the "internal" morality of medicine, maintained through the centuries, structures the limits of what can and cannot transpire within the patient–physician relationship. Understanding these limits, then, allows us to examine the processes involved in resolving these cases.

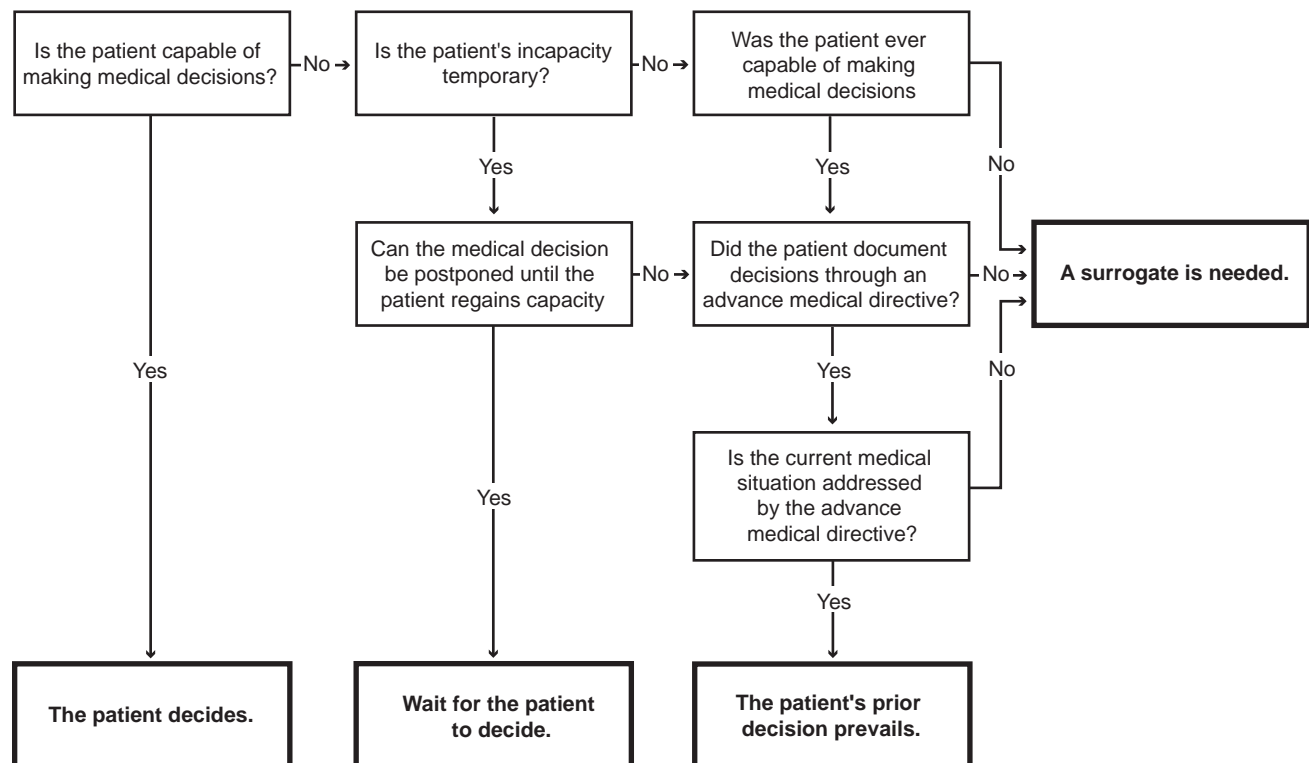
The foremost issue is whether the patient is competent to understand the medical situation and be an active participant in whatever decisions must be made. Competency can be difficult to discern from a brief interaction. A patient who is able to respond to others in casual conversation or make simple decisions may not necessarily understand more complex issues. If, in the process of evaluating a patient's competency, it becomes apparent that the patient is not competent to be an active and informed participant in medical decisions, then a

morally valid surrogate must be found to act on behalf of this patient. Figures 3-8 and 3-9 detail this decision process.

However, if all in-house resources available to reconcile differences between and among patient, physician, members of the patient's family, members of the healthcare team, and institution are exhausted without resolution, then the matter must be handled as a legal dispute and referred to the courts. There have been a large number of such disagreements in the past 30 years that have come to legal resolution. Many of these cases also involve some of the most contentious areas of clinical bioethics. The opinions handed down by the courts in these cases

have also added to the "corpus of precedents." Because the opinions rendered in these cases have been so clear, logical, full of practical wisdom, and considered just by professional healthcare workers, clinical ethicists, and the public at large, they are frequently also referenced in suggested resolutions offered by clinical ethicists when called upon to assist in conflict resolution. Table 3-1 gives a brief summary of some of the important cases in the "corpus of precedents" of cases in clinical ethics.

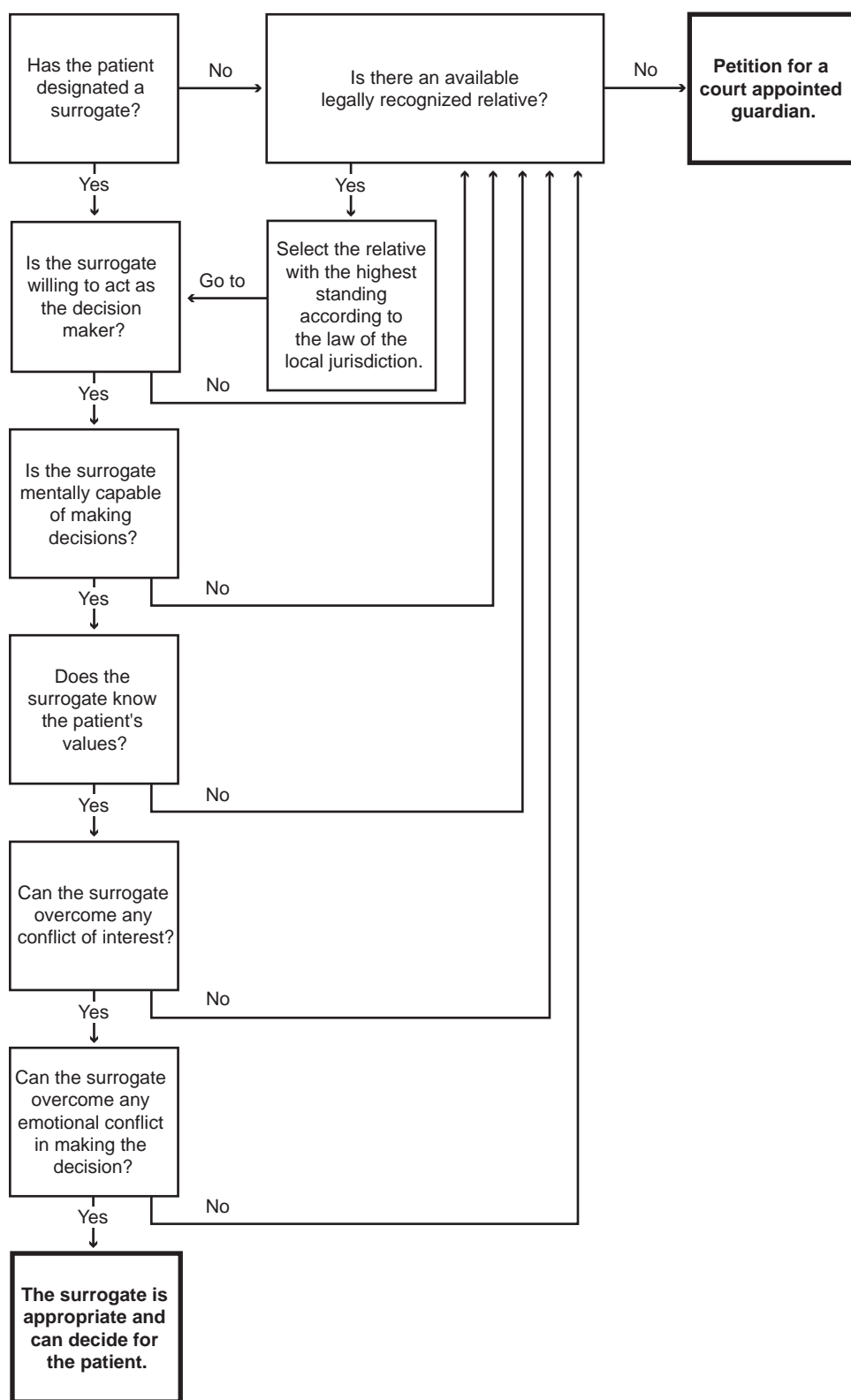
The following list of landmark cases, however, are those most widely known and referenced in bioethics, and are presented in greater detail in the Attachment following this chapter.



**Fig. 3-8.** Determination of patient capacity to make decisions regarding medical care. This schematic presents the process of determining whether or not a patient is capable of making informed medical choices or needs a surrogate decision maker. A key component of this process is an assessment not only of the patient's present capacity, but also whether or not the patient might be capable at some point in the future of participating in an informed choice. An obvious example of a temporary incapacitation would be that of someone under the influence of alcohol or drugs who could reasonably be expected to return to a functional state in a matter of hours. When a patient is not presently capable of making decisions, nor likely to be capable in a timely manner, or at all, in the future, then it becomes necessary to determine what the patient would have wanted done. If the patient's previously stated desires can be ascertained, they should be followed, to the extent allowed by law. Although the schematic might give a sense of order to the process, each situation is unique. However, by understanding the process for making these decisions, all participants can be better assured that decisions made about patient care, by whomever they have been made, have been made in the best manner possible.

Source: Thomas E. Beam, MD, Colonel, Medical Corps, United States Army; Ethics Consultant to The Surgeon General, United States Army; Director, Borden Institute, Walter Reed Army Medical Center, Washington, DC 20307-5001.

**Fig. 3-9.** Selection of a surrogate decision maker. This schematic details the sometimes complex process of determining who should function as a surrogate decision maker. These decisions are made in the context of what the patient wants, had wanted, or would have wanted. As difficult as the process is to judge whether or not someone needs a surrogate, it is all the more difficult to ascertain who that surrogate should be, especially if the patient has not previously selected a surrogate. The selection of a surrogate involves both legal and emotional complexities. The legal aspects involve determining order of succession to ascertain who has the most immediate legal right to act on behalf of a patient who is not capable of making decisions about medical care. The emotional aspects involve determining if that individual will not only consent to function as a surrogate, but is mentally capable, as well as knowledgeable of the patient's desires, while not in conflict either emotionally or financially with the outcome of the decision to be made. In the event that the first legal surrogate is unwilling or unable to function for the patient, the "go to" loop in the process is activated, to then repeat the evaluation of the next individual in the legal lineage. If no one within that lineage is capable, then the legal system must become involved to select someone outside the family. This process, as represented by this figure, is designed to assist physicians, patients, and patients' families in making what can be viewed as one of the most difficult decisions any one human can make regarding the fate of another.



Source: Thomas E. Beam, MD, Colonel, Medical Corps, United States Army; Ethics Consultant to The Surgeon General, United States Army; Director, Borden Institute, Walter Reed Army Medical Center, Washington, DC 20307-5001.

TABLE 3-1

## OTHER CASES IN THE "CORPUS OF PRECEDENTS" OF CLINICAL BIOETHICS

Case	Date	Case Description
Schloendorff	1914	Self-determination in medical treatment. <i>Schloendorff v Society of New York Hospital</i> , 211 NY 125, 129–130, 105 NE 92, 93 (1914). This opinion contained the now well-known statement of Justice Cordozo that "every human being of adult years and sound mind has a right to determine what shall be done with his own body." It was the first case that the Supreme Court heard regarding informed consent and autonomy in medical matters.
Griswold	1965	Personal liberty; ability to prescribe contraceptives. <i>Griswold v Connecticut</i> , 381 US 479 (1965).
Cobbs	1972	Failure of physician to obtain fully informed consent. <i>Cobbs v Grant</i> , 502 P2d 1, decided Oct 27, 1972.
Roe	1973	Legalizing abortion. <i>Roe v Wade</i> , 410 US 113 (1973).
Edelin	1976	Abortion; manslaughter by "wanton reckless omission of an act disregarding the possible consequences to the rights of others"; failure to resuscitate an aborted fetus. <i>Commonwealth v Edelin</i> , Mass Supreme Court 359, NE2d 4, 1976.
McFall	1978	Denial of request for forced donation of compatible tissue. <i>McFall v Shimp</i> , no 78-1771 in Equity (CP Allegheny County, Pa, Jul 26, 1978).
Candura	1978	Refusal of treatment by patients of questionable competence. <i>Lane v Candura</i> , Mass Adv Sh 588 NE2d 1232 (1978).
Northern	1978	Refusal of treatment by patients of questionable competence. <i>Dept of Human Services v Northern</i> , 563 SW2d 197 (Tenn Ct of Appeals, 1978).
Dinnerstein	1978	Do not resuscitate order for patient in terminal stages, agreed to by family. <i>In the Matter of Dinnerstein</i> , Mass App, 380 NE2d 134 (1978).
Green	1978	Three-year-old boy with acute lymphocytic leukemia whose parents refuse chemotherapy in favor of an approach combining megavitamins, diet, and laetrile. <i>Custody of a Minor</i> , 379 NE2d 1053 (Mass 1978), reviewed and aff'd, Mass Adv Sht 2124 (1979).
Eichner	1980	Withdrawal of ventilator from an 83-year-old monk with massive brain damage following routine surgery. The religious leader of the order made the decision, acting on prior remarks by the patient about cases of this sort. <i>Eichner v Dillon</i> , 73 AD2d 432, 426 NYS2d 517 (1980), reviewed and aff'd, NY Ct of Appeals-420 NE2d 64 (1981).
Karp	1982	Human research; failure to obtain permission for an experimental operation implanting an artificial heart; surgeon's plea of "therapeutic privilege." <i>The Trial of Denton Cooley</i> . NOVA videotape produced by WGBH, Boston.
Clark	1982	Implantation of a totally artificial heart—The Jarvick-7. Shaw M, ed. <i>After Barney Clark</i> . Austin: University of Texas Press; 1982.
Bouvia	1984	Twenty-seven-year old quadriplegic who requests hospital's assistance as she starves to death; force feeding authorized. <i>Bouvia v County of Riverside</i> (1579780 Riverside Co, Calif Sup Ct 1984); <i>Bouvia v Superior Court</i> , 179 Cal App 3d 1127 (1986).
Bartling	1984	Conscious patient asks to have ventilator removed. Refused by lower court, but overturned (after his death). <i>Bartling v Superior Court</i> , 163 Cal App 3d 186 (1984).
Estate of Leach	1984	Appeals court rules that "a cause of action exists for wrongfully placing and maintaining a patient on life-support systems." <i>Leach v Akron General Medical Center</i> , 68 Ohio Misc. 1, 426 NE2d 809; <i>Estate of Leach v Shapiro</i> 469 NE2d 1047 (Ohio App 1984).
Wanglie	1991	Futility and obligations of care givers. <i>In re Helga Vanglie</i> , Fourth Judicial District (Dist Ct, Probate Ct Div) PX-91-283, Minnesota, Hennepin County.



- The Georgetown Case: Denying parental autonomy in a life-threatening condition when a minor is involved (1964).
- The Hopkins Case: Refusal of parents for treatment of a minor (surgical correction of esophageal atresia in a newborn with Down's syndrome); allowing to die by starvation (1971).
- The Quinlan Case: Role of a guardian in surrogate decision making; recognition of autonomy in once competent persons; withdrawal of a life support system (a ventilator) (1976).
- The Tarasoff Case: Breaking of confidentiality (1974, 1976).
- The Saikewicz Case. Treating incompetent persons as autonomous agents; substituted judgment (1977).
- The Barber and Nefzger Case: Alleged murder by withdrawal of medical treatment (ventilator, intravenous lines, and a nasogastric feeding tube) (1983).
- The Conroy Case: Standards for determining action including consideration of the burdens/benefits ratio; withholding food and fluids by withdrawal of a nasogastric tube in a demented but conscious patient (1985).
- The Brophy Case: Substituted judgment; withholding administration of food and fluids by withdrawal of a gastrostomy feeding tube in a patient in the persistent vegetative state (1986).
- Baby M: Surrogate motherhood and custody (1988).
- The "Dax" Case: Denying competence and autonomy (1989).
- The Cruzan Case: The state's role in setting standards for substituted judgment; withdrawal of artificially administered hydration and nutrition administered by gastrostomy tube in a patient in the persistent vegetative state, the first such case considered by the Supreme Court of the United States (1990).
- The Case of Timothy E. Quill, "Jane Roe," et al: Physician-assisted suicide; denial by the Supreme Court of the United States (1997).

## CONCLUSION

This chapter has explored the rich historical background of medical ethics to enable the reader to understand better how clinical ethics came to be. It has also detailed how clinical ethics is "done," to include the attachment at the end of this chapter that provides the 12 benchmark cases in clinical ethics.

The next chapter will present the science behind the "art" of the clinical encounter. By understanding the various methodologies in empirical research on medical ethics, the healthcare professional can better understand the process of reaching the ethical decision. As alluded to earlier, this entire field has picked up momentum with the rapid advance of scientific knowledge and resulting treatment options. Although clinical ethics is based on age-

old guidance, it must constantly respond to evolving possibilities. Only in this way can the physician practice the "art" of the clinical encounter.

In summary, clinical ethics aims at improving the quality of care and outcomes for a particular patient. Clinical ethics attempts to identify, analyze, and offer resolutions to the ethical dilemmas that particular patients and their healthcare providers face in their mutual relationships in the normal course of diagnosis and treatment of a disease process and the ensuing illness produced by it in a patient. Clinical ethics is an essential aspect of quality care. Teaching clinical ethics to all members of the healthcare enterprise is a part of improving in general the quality of care and in particular optimizing individual patient outcomes.

## REFERENCES

1. Fletcher JC, Brody H. Clinical ethics: I. Elements and methodologies. In: Reich WT, ed-in-chief. *Encyclopedia of Bioethics*. Rev ed, Vol 1. New York: Macmillan Publishing; 1995: 399–404.
2. Jonsen AR, Siegler M, Winslade WJ. *Clinical Ethics: A Practical Approach to Ethical Decisions in Clinical Medicine*. New York: Macmillan; 1982.
3. Pellegrino ED. The metamorphosis of medical ethics: A 30-year retrospective. *JAMA*. 1993;269(9):1158–1162.
4. Taylor C. Personal Communication, June 12, 2000.

5. Fletcher JF. *Morals and Medicine: The Moral Problems of: The Patient's Right to Know the Truth, Contraception, Artificial Insemination, Sterilization, Euthanasia*. Princeton, NJ: Princeton University Press; 1954.
6. Siegler M. Clinical ethics and clinical medicine. *Arch Intern Med*. 1979;139(8):914–915.
7. Siegler M. Decision-making strategy for clinical-ethical problems in medicine. *Arch Intern Med*. 1982;142(12): 2178–2179.
8. Toulmin S. How medicine saved the life of ethics. *Perspect Biol Med*. 1982;25(4):736–750.
9. Jonsen AR, Toulmin SE. *The Abuse of Casuistry: A History of Moral Reasoning*. Berkeley: University of California Press; 1988: 257.
10. Keenan J. Casuistry. In: O'Brien WJ, ed. *For That I Came: Virtues and Ideals of Jesuit Education*. Washington, DC: Georgetown University Press; 1997: 93–114.
11. Keenan J. Personal Communication, 1997.
12. Arras JD. Getting down to cases: The revival of casuistry in bioethics. *J Med Philos*. 1991;16(1):29–51.
13. Hippocrates. In: Jones WHL, trans. *Hippocrates*, Vols 1 & 2. Cambridge, Mass: Harvard University Press; 1972.
14. Edelstein L. In: Temkin O, Temkin CL, eds, Temkin CL, trans. *Ancient Medicine: Selected Papers of Ludwig Edelstein*. Baltimore, Md: Johns Hopkins Press; 1967.
15. Beauchamp TL. Common sense and virtue in the Scottish Moralists. In: Baker R, Porter D, Porter R, eds. *The Codification of Medical Morality: Historical and Philosophical Studies of the Formalization of Western Medical Morality in the Eighteenth and Nineteenth Centuries* [Philosophy and Medicine Series, No. 45]. Dordrecht, The Netherlands: Kluwer Academic Publishers; 1993: 99–122.
16. Percival T. *Medical Ethics; or a Code of Institutes and Precepts, Adapted to the Professional Conduct of Physicians and Surgeons*. Manchester, England: S Russell; 1803.
17. Gregory J. *Lectures on the Duties and Qualifications of a Physician*. London: W Strahan & T Cadell; 1772.
18. Sidgwick H. *The Methods of Ethics*. 7th ed. Indianapolis, Ind: Hackett Publishing Co; 1981: 315–316.
19. Clement of Alexander. On spiritual perfection (*Stromateis*, Chap. 7). In: Chardwick H, ed. *Alexanderian Christianity*. Philadelphia, Pa: Westminster Press; 1954: 93–165.
20. Konold DE. *A History of American Medical Ethics 1847–1912*. Madison, Wisc: State Historical Society of Wisconsin; 1962.
21. American Medical Association. Code of medical ethics. In: *Proceedings of the National Medical Conventions, Held in New York, May, 1846, and in Philadelphia, May, 1847*. Philadelphia, Pa: TK & PG Collins, Printers; 1847.
22. Fishbein M. *A History of the American Medical Association 1847 to 1947*. Philadelphia, Pa: WB Saunders Co; 1947: 35–36.
23. Beauchamp TL. Worthington Hooker on ethics in clinical medicine. In: Baker R, ed. *The Codification of Medical Morality: Historical and Philosophical Studies of the Formalization of Western Medical Morality in the Eighteenth and Nineteenth Centuries* [Philosophy and Medicine Series, No. 49]. Dordrecht, The Netherlands; Kluwer Academic Publishers; 1995: 105–119.
24. Hooker W. *Physician and Patient; Or, A Practical View of the Mutual Duties, Relations, and Interests of the Medical Profession and the Community*. New York: Baker & Scribner; 1849: 361–365.
25. Osler W. On the need of a radical reform in our method of teaching senior students. (*New York*) *Medical News*. January 30, 1903.

26. Siegler M. A legacy of Osler: Teaching clinical ethics at the bedside. *JAMA*. 1978;239(10):951–956.
27. Osler W. The ‘*religio medici*’ in the library. *Br Med J*. 1905(ii):993–998.
28. Osler W. Teaching and thinking—the two functions of a medical school. *Montreal Med J*. 1894;5(xxiii):561–572.
29. Peabody FW. The care of the patient. *JAMA*. 1927;88:877.
30. Hamman L. Presidential address. *Trans Assoc Am Physicians*. 1941;56:1.
31. Cabot R. The use of truth and falsehood in medicine: An experimental study. In: Reiser SJ, Dyck AJ, Curran WJ, eds. *Ethics in Medicine: Historical Perspectives and Contemporary Concerns*. Cambridge, Mass: MIT Press; 1977.
32. Gilkey LB. *Catholicism Confronts Modernity: A Protestant View*. New York: Seabury Press; 1975.
33. Gilkey LB. *How the Church Can Minister to the World Without Losing Itself*. New York: Harper & Row; 1964.
34. Hastings A, ed. *Modern Catholicism: Vatican II and After*. New York: Oxford University Press; 1991.
35. Barth K. *Adlimina Apostolorum: An Appraisal of Vatican II*. Crim KR, trans. Edinburgh: St. Andrew Press; 1969.
36. Seldin D. The medical model: Biomedical science as the basis of medicine. *Beyond Tomorrow: Trends and Prospects in Medical Science*. New York: The Rockefeller University Press; 1977.
37. Engel GL. The need for a new medical model: A challenge for biomedicine. *Science*. 1977;196(4286):129–136.
38. Kass LR. Regarding the end of medicine and the pursuit of health. *Public Interest*. 1975;40(Summer):11–42.
39. Siegler M. The doctor-patient encounter and its relationship to health and disease. In: Caplan AL, Engelhardt HT Jr, McCartney JJ, eds. *Concepts of Health and Disease: Interdisciplinary Perspectives*. Reading, Mass: Addison-Wesley, Advanced Book Program/World Science Division; 1981: 631–641.
40. Whitbeck C. A theory of health. In: Caplan AL, Engelhardt HT Jr, McCartney JJ, eds. *Concepts of Health and Disease: Interdisciplinary Perspectives*. Reading, Mass: Addison-Wesley, Advanced Book Program/World Science Division; 1981: 611–626.
41. Pellegrino ED, Thomasma DC. *For the Patient’s Good: The Restoration of Beneficence in Health Care*. New York: Oxford University Press; 1988.
42. Ramsey P. *The Patient as Person: Explorations in Medical Ethics*. New Haven, Conn: Yale University Press; 1970.
43. Ramsey P. *Ethics at the Edges of Life*. New Haven, Conn: Yale University Press; 1978.
44. Beauchamp TL, Childress JF. *Principles of Biomedical Ethics*. New York: Oxford University Press; 1979.
45. Ross WD. *The Right and the Good*. Indianapolis, Ind: Hackett Publishing; 1930: 19.
46. Veatch RM. Clinical ethics, applied ethics, and theory. In: Hoffmaster B, Freedman B, Fraser G, eds. *Clinical Ethics: Theory and Practice*. Clifton, NJ: Humana Press; 1989: 7–25.
47. Beauchamp TL. On eliminating the distinction between applied ethics and ethical theory. *The Monist*. 1984;67:514–531.
48. Annas GJ, Grodin MA, eds. *The Nazi Doctors and the Nuremberg Code: Human Rights in Human Experimentation*. New York: Oxford University Press; 1992.
49. Diamond EF. Reflections on the fiftieth anniversary of the Nuremberg Doctors’ Trials. *Linacre Q*. 1997;64(2):17–20.

50. Ingelfinger FJ. Ethics of experiments on children. *N Engl J Med*. 1973;288(15):791–792.
51. Krugman S. The Willowbrook hepatitis studies revisited: Ethical aspects. *Rev Infect Dis*. 1986;8(1):157–162.
52. Jones JH. *Bad Blood: The Tuskegee Syphilis Experiment*. New York: Free Press; 1981.
53. Branson R, Casebeer K. The Quinlan decision: Five commentaries. *Hastings Cent Rep*. 1976;6(1):8–11.
54. Pellegrino ED. Bioethics as an interdisciplinary enterprise: Where does ethics fit in the mosaic of disciplines? In: Carson RA, Burns R, eds. *Philosophy of Medicine and Bioethics: A Twenty-Year Retrospective and Critical Appraisal*. Boston, Mass: Kluwer Academic Publishers; 1997: 1–23.
55. *Guide to Awareness and Evaluation of Humanistic Qualities in the Internist*. Portland, Ore: American Board of Internal Medicine; 1983.
56. Medical Ethical Subcommittee, American Board of Pediatrics. Teaching and evaluation of interpersonal skills and ethical decisionmaking in pediatrics. *Pediatrics*. 1987;79(5):829–833.
57. Ayer AJ. Editorial foreword. In: Nowell-Smith PH, ed. *Ethics*. Baltimore, Md: Penguin; 1957: iii.
58. Caplan AL. Moral experts and moral expertise. In: Hoffmaster B, Freedman B, Fraser G, eds. *Clinical Ethics: Theory and Practice*. Clifton, NJ: Humana Press; 1989: 59–87.
59. Macklin R. Ethical theory and applied ethics, a reply to the skeptics. In: Hoffmaster B, Freedman B, Fraser G, eds. *Clinical Ethics: Theory and Practice*. Clifton, NJ: Humana Press; 1989: 101–124.
60. Ackerman TF. Moral problems, moral inquiry, and consultation in clinical ethics. In: Hoffmaster B, Freedman B, Fraser G, eds. *Clinical Ethics: Theory and Practice*. Clifton, NJ: Humana Press; 1989: 141–160.
61. Siegler M, Singer PA. Clinical ethics consultation: Godsend or “God squad”? [editorial]. *Am J Med*. 1988;85(6):759–760.
62. Sulmasy DP, FitzGerald D, Jaffin JH. Ethical considerations. *Crit Care Clin*. 1993;9(4):775–789.
63. Pellegrino ED. Personal Communication, June 12, 2000.
64. La Puma J, Priest ER. Medical staff privileges for ethics consultants: An institutional model. *QRB Qual Rev Bull*. 1992;18(1):17–20.
65. Fletcher JC. Needed: A broader view of ethics consultation [editorial]. *QRB Qual Rev Bull*. 1992;18(1):12–14.
66. *In re Quinlan*, 70 NJ 10, 355A. 2nd 647 (1976).
67. Rosner F. Hospital ethics committees: A review of their development. *JAMA*. 1985;253(18):2693–2697.
68. Judicial Council, American Medical Association. Guidelines for ethics committees in health care institutions. *JAMA*. 1985;253(18):2698–2699.
69. Patient rights and organization ethics. In: *Comprehensive Accreditation Manual for Hospitals (CAMH)*. Chicago, Ill: Joint Commission for the Accreditation of Health Care Organizations; 1998 (May update): 5.
70. Siegler M, Pellegrino ED, Singer PA. Clinical medical ethics. *J Clin Ethics*. 1990;1(1):5–9.
71. McCormick RA. Ethics committees: Promise or peril? *Law Med Healthcare*. 1984;12(4):150–155.
72. Siegler M. Ethics committees: Decisions by bureaucracy. *Hastings Cent Rep*. 1986;16(3):22–24.
73. Singer PA, Siegler M, Pellegrino ED. Research in clinical ethics. *J Clin Ethics*. 1990;1(2):95–99.

74. Sulmasy DP. What's so special about medicine? *Theor Med*. 1993;14(1):27–42.
75. Sulmasy DP, Geller G, Levine DM, Faden RR. A randomized trial of ethics education for medical house officers. *J Med Ethics*. 1993(3);19:157–163.
76. Pellegrino ED, Siegler M, Singer PA. Teaching clinical ethics. *J Clin Ethics*. 1990;1(3):175–180.
77. Plato. Meno. Cooper L, et al, trans. In: Hamilton E, Cairns H, eds. *Plato: The Collected Dialogues*. Princeton, NJ: Princeton University Press; 1961: 353–384.
78. Pellegrino ED. Teaching medical ethics: Some persistent questions and some responses. *Acad Med*. 1989;64(12):701–703.
79. Pellegrino ED. Personal Communication, 1999.
80. Culver CM, Clouser KD, Gert B, et al. Basic curricular goals in medical ethics. *N Engl J Med*. 1985;312(4):253–256.
81. Subcommittee on the Evaluation of Humanistic Qualities in the Internist, American Board of Internal Medicine. Evaluation of humanistic qualities in the internist. *Ann Intern Med*. 1983;99(5):720–724.
82. Carson RA, Curry RW Jr. Ethics teaching on ward rounds. *J Fam Pract*. 1980;11(1):59–63.
83. Churchill LR, Cross AW. Moralism, technician, sophist, teacher/learner: Reflections on the ethicist in the clinical setting. *Theor Med*. 1986;7(1):3–12.
84. Kong H, Singer P, Lynch A, Siegler M. Teaching and learning clinical medical ethics during residency training. *Ann Royal Coll Phys Surg of Canada*. 1988;21(6):423–426.
85. Dock LL. Ethics or a code of ethics? *Short Papers on Nursing Subjects*. New York: M Louise Longway Publishers; 1900: 37–57.



## Chapter 3: ATTACHMENT

### LANDMARK CASES IN ETHICS

**Case 1:** The : Denying parental autonomy in a life-threatening condition when a minor is involved. *Application of President and Directors of Georgetown College, Inc.*, 331 F.2d 1000 (DC Cir.), cert. denied, 377 U.S. 978 (1964).

A 25-year-old patient, a Jehovah's Witness, was brought to Georgetown University Hospital by her husband for treatment of a bleeding peptic ulcer that had ruptured. It was estimated that she had lost about "two-thirds" of her blood. She was in shock and appeared to be terminal. She was the mother of a 7-month-old child. Her husband refused to permit the attending physicians to administer blood transfusions.

Upon the request of the physicians, the hospital's counsel applied to the District Court of the District of Columbia for permission to administer blood. The application was denied. The counsel immediately applied to Judge Skelly Wright of the Court of Appeals for the District of Columbia for an order to permit the administration of blood. Judge Wright went to the hospital and conferred with the doctors, legal counsel, the patient's husband, and, finally, the patient. The medical need for blood was confirmed. Judge Wright was convinced that the prognosis was good if blood were administered; if not, death was inevitable.

The patient's husband again refused to give permission but told Judge Wright that if the court ordered the administration of blood it would not be his responsibility. The patient, who was by this time in a very grave condition and could hardly respond to Judge Wright, was asked by him if she would permit the administration of blood transfusions that would save her life. Her response was a murmured: "Against my will."

Judge Wright, fearing that continued probing questions would endanger her life further, asked only one other question as to whether she would oppose a court ordered transfusion. Judge Wright stated in his written opinion that at that time he got the impression from her hushed murmuring that she indicated that it would then not be her responsibility. Judge Wright ordered the administration of transfusions for he felt that the 7-month-old child should not be deprived of a mother who could be saved from inevitable death by a treatment that could be administered and would be effective. He immediately signed an order allowing the physicians to administer such transfusions that would save her life. The transfusions were given and the patient made a full and uneventful recovery.

**Case 2:** The Hopkins Case: Refusal of parents for treatment of a minor (surgical correction of esophageal atresia in a newborn with Down syndrome); allowing to die by starvation.

In 1971 three newborn babies with Down syndrome, as well as life-threatening intestinal defects, were patients in the Newborn Intensive Care Unit of the Johns Hopkins Hospital in Baltimore, Maryland. One of these infants had duodenal atresia, for which the pediatric surgeons had urged surgical correction of the lesion. The mother, a nurse who had worked especially with children who had Down syndrome, refused to permit surgical correction of the atresia. Her husband, a lawyer, concurred. The surgeons did not seek a court order to perform the surgery. The mother of the second baby with Down syndrome had other children and indicated that she felt it would not be fair to her other children to raise them with a "mongoloid." She also declined surgical intervention to save her infant's life.

Both of these infants were “allowed to die” as it was thought that that approach was a more morally acceptable course than active euthanasia and thus unlikely to incur legal prosecution. The first baby was not fed although the baby was surreptitiously hydrated to some degree. The baby died 15 days later. The second baby’s course paralleled the first; the baby died in 19 days. The deaths of these two babies were reported to have caused anguish for the staff of the intensive care unit, particularly the nurses.

The parents of the third baby with Down syndrome had originally been referred to Johns Hopkins Hospital by the obstetrician who had diagnosed Down syndrome at amniocentesis; he gave the parents a pessimistic prognosis. After he was born, this baby was also diagnosed with an intestinal obstruction. The obstruction was surgically corrected with the permission of his parents and the baby was discharged well.

A film, *Who Should Survive?*,<sup>1</sup> based on the story of the first baby, has been used for instruction of physicians, nurses, social workers, medical and nursing students, and others in the healthcare professions. The film gave wide publicity to the case, which has subsequently become known simply as the “Hopkins Case.”<sup>2</sup>

Adapted with permission from Pence GE. *Classic Cases in Medical Ethics: Accounts of Cases That Have Shaped Medical Ethics, With Philosophical, Legal, and Historical Backgrounds*. 2nd ed. New York: McGraw-Hill; 1995: 175–176.

Additional sources: (1) *Who Should Survive?* [videotape]. Washington, DC: Joseph P Kennedy Jr Foundation. (2) Gustafson JM. Mongolism, parental desires, and the right to life. *Perspect Biol Med*. 1973;16(4):529–557.

**Case 3:** The Quinlan Case: Role of guardian in surrogate decision making; recognition of autonomy in once competent persons; withdrawal of a life support system (a ventilator). In *re Quinlan*, 70 NJ. 10, 355 A.2d 647 (NJ. 1976), cert. denied sub. nom. *Garger v. New Jersey*, 429 U.S. 922 (1976).

Karen Ann Quinlan, a 21-year-old single female, lapsed into a coma in April 1975. She suffered brain damage secondary to apnea caused by the combined ingestion of alcohol and tranquilizing medications. After an adequate period of treatment, the medical consensus was that there was no hope for recovery of higher-brain function. At that time her parents, devout Roman Catholics, requested her physician withdraw the use of the ventilator that was believed to be keeping her alive.

Her physician declined to remove the ventilator because he felt she would be unable to breathe spontaneously, and thus would immediately die of respiratory failure. This action, her physician felt, would be unethical because it would violate the long-held medical principle of “non nocere” (do no harm), and furthermore would be an act of maleficence—directly contributing to her death.

Karen Ann Quinlan’s parents felt that the artificial ventilation was an extraordinary treatment and as such was not an obligatory therapy. The Quinlan family indicated that such treatment was against the wishes of their daughter previously expressed at times when she was fully competent.

The differences regarding therapy between the parents, on the one hand, and the physician and the hospital, on the other, led to a lawsuit that eventually reached the New Jersey State Supreme Court. The court, endorsing the principle of autonomy and allowing for substituted judgment, ruled in March 1976 that Karen Ann had the right to refuse treatment and that a duly appointed guardian had the right to make a decision regarding therapy that was in the best interests for this mentally incompetent person.

The court appointed her father her guardian with full power to engage or discharge her physician(s) and institutions and make decisions regarding therapy. It allowed removal of the ventilator if, in the opinion of the attending physician and after consultations with the hospital’s or other institution’s “Ethics Committee,” there was no hope of return to a cog-

nitive sapient state. This action, the court ruled, would be without any civil or criminal liability on the part of any participant—guardian, physician, or hospital.

Mr. Quinlan ordered that the ventilator (that his daughter had now been on for almost a year) be disconnected, and this was done. Surprisingly, Karen Ann continued to breathe without the assistance of the ventilator. However, she remained in a permanent vegetative state for the next 9 years. During that period she received nutrition and hydration through a nasogastric tube, remaining bedridden and lying in a permanent fetal position. She showed no sapient signs but did exhibit reflex activity. She developed pneumonia in June 1985. Her guardian opted against treatment with antibiotics, as he felt it was an extraordinary intervention, and thus not obligatory. She died of pneumonia on 11 June 1985.

Adapted with permission from: (1) Munson R. *Intervention and Reflection: Basic Issues in Medical Ethics*. 4th ed. Belmont, Calif: Wadsworth Publishing Co; 1992: 142–145; (2) Pence GE. *Classic Cases in Medical Ethics: Accounts of Cases That Have Shaped Medical Ethics, With Philosophical, Legal, and Historical Backgrounds*. 2nd ed. New York: McGraw-Hill; 1995: 8–17.

**Case 4:** The Tarasoff Case: Breaking of confidentiality. *Tarasoff v. the Regents of the University of California, et al*, 529 P.2d 553 (Cal. 1974); *Tarasoff v. the Regents of the University of California, et al*, 551 P.2d 334 (Cal. 1976).

In August 1969, a patient, Prosenjit Poddar, a student at the University of California at Los Angeles (UCLA), who was then in psychotherapy with Dr. Lawrence Moore, a psychologist at the Cowell Memorial Hospital, told his therapist that he was going to kill an unnamed girl when she returned from a vacation in Brazil. Dr. Moore sought assistance from two of his fellow psychiatrists in the department. They collectively decided that the patient should be committed to the hospital for observation.

Dr. Moore called the campus police at UCLA and spoke with two police officers, requesting them to confine Poddar while he was seeking commitment of the patient to the hospital. Dr. Moore sent a letter detailing his request, with supporting evidence, to the Chief of the Campus Police Force, William Beall, requesting police assistance in bringing about Poddar's confinement.

The police officer who was originally contacted, with the help of two other campus police officers, found Poddar and confined him briefly. After their initial examination, the campus police officers were convinced that Poddar was rational and released him after he promised to stay away from the coed, Tatiana Tarasoff, who had been quickly and easily identified as the unnamed girl threatened.

Dr. Moore's supervisor, the Chairman of the Department of Psychiatry at Crowell Memorial Hospital, asked the Campus Police Department to return Dr. Moore's letter and directed that all copies of the letter and notes that Moore had be destroyed and ordered "no action to place Prosenjit Poddar in a 72-hour treatment and evaluation facility." Poddar shortly thereafter became very close to Tatiana's brother, who was also a student at the university. Soon after this friendship blossomed, Poddar became the brother's roommate in the men's dormitory. On 27 October 1969, Poddar killed Tatiana Tarasoff by shooting her.

In the court of first instance, Dr. Moore had been sued by Tatiana's parents for not notifying Tatiana and the family of the danger that she was in from the threat made by Poddar. That court ruled in favor of the family. An appellate court concurred in the lower court's opinion and the case then came to the California Supreme Court on appeal. The parents had contended that Dr. Moore should have broken confidentiality because of the danger implied in the threat by the patient, Poddar.

The California Supreme Court discussed the history of medical confidentiality at length and emphasized that protecting private information was a primary duty of a mental health professional. Nevertheless, the court found that an exception to the usual rule was justified when a specifically articulated threat concerning an identifiable third party was communicated by a patient to a therapist. In that unusual instance, the court concluded: "[t]he

protective privilege ends where the public peril begins.” In 1976, the court considered a second aspect of the case and in a second opinion, expanded the therapist’s duty not only to warn the patient, but to exercise professional judgment regarding the necessary course of action to protect a potential victim.

Adapted with permission from: (1) Fletcher JC, Hite CA, Lombardo PA, Marshall MF, eds. *Introduction to Clinical Ethics*. Frederick, Md: University Publishing Group; 1995: 41–42; (2) Beauchamp TL, Childress JF. *Principles of Biomedical Ethics*. 3rd ed. New York: Oxford University Press; 1989: Appendix.

**Case 5:** The Saikewicz Case: Treating incompetent persons as autonomous agents; substituted judgment. *Superintendent of Belchertown State School v. Saikewicz*, 373 Mass. 728, 370 N.E.2d 417 (1977).

Joseph Saikewicz, a patient in the Belchertown State School for the “feebleminded” in Massachusetts, was 67 in 1976. He had lived in mental institutions since he was 27. He had lived in various foster homes in Central Massachusetts before that because he was a ward of the court. His mental age was approximately two and one half years. He only grunted and gestured in response to physical contact. He was unaware of any danger. When not in familiar surroundings he became disoriented. He had been in good health until April 1976, when he was found to have acute myeloblastic monocytic leukemia, a fatal disease.

Consideration was given to treating him with chemotherapy. It is known that chemotherapy in this condition will bring about a remission of the disease in approximately 40% of the patients for a period of 1 to 12 months. But this remission was always only temporary. At the time of his diagnosis, the disease was always fatal. The chemotherapeutic regimen often caused serious side effects, such as vomiting, anemia, and susceptibility to overwhelming infections. Upon petition of the Superintendent of the Belchertown Institution, the court appointed a guardian *ad litem* to make necessary decisions regarding treatment.

The guardian *ad litem* noted that the disease was incurable and that chemotherapy would bring discomfort and possibly serious medical problems prior to the patient’s inevitable death. The patient would not be able to understand the treatment nor the discomfort and pain that it would cause. The guardian *ad litem* determined that not treating the patient would be in his best interests. The Supreme Judicial Court of the Commonwealth of Massachusetts upheld this decision. Mr. Saikewicz died on 4 September 1976, approximately 5 months after his diagnosis.

**Case 6:** The “Dax” Case: Denying competence and autonomy.

Donald Cowart, nicknamed “Dax,” and his father were involved in a propane-gas explosion in a Texas oil field in 1978. Donald received burns over 67% of his body and his father was killed. (Dax had been a fighter pilot in World War II and had seen other pilots who had been burned.) When the emergency medical technicians arrived after the explosion, he requested a gun from them so he could shoot himself. His request was understandably denied by the technicians. He was then transported to Parklawn Memorial Hospital in Dallas where he requested that his attending physicians only provide “comfort care” and narcotics to ease the pain. A psychiatrist who examined him concluded that he was competent. His physicians did not concur with his desire to receive only palliative care. Instead, they followed his mother’s request to do everything medically possible for her son.

The physicians began the lengthy and arduous process of treating his burns. Dax continued to request the discontinuation of the excruciatingly painful treatments for the burns, but his physicians continued the treatments. He was never declared incompetent by court order; no competency decision was ever sought by Dax, his mother, or by his attending physicians. His hospitalization lasted nearly a year. He was blind, disfigured, and had



decreased motor abilities because of the severe scarring of his skin and muscles that resulted from his burns, their treatment, and the skin grafting.<sup>1</sup>

Dax received a substantial out-of-court settlement from the gas company. He graduated from law school, married a nurse he had known in high school, and became interested in ham radio and raising golden retrievers. He became a frequent speaker for the *Society for the Right to Die*, arguing that even though he was glad to be alive today with his present blessings, his physicians had been morally wrong to treat him against his wishes. Dax Cowart's case became the topic of a videotape, *Please Let Me Die*,<sup>2</sup> and a later film, *Dax's Case*.<sup>3</sup>

Adapted with permission from: (1) Beauchamp TL, Childress JF. *Principles of Biomedical Ethics*. 3rd ed. New York: Oxford University Press; 1989: Appendix; (2) Weir RF. *Abating Treatment With Critically Ill Patients: Ethical and Legal Limits to the Medical Prolongation of Life*. New York: Oxford University Press; 1989: 3–5.

Additional sources: (1) Kliever LD, ed. *Dax's Case: Essays in Medical Ethics and Human Meaning*. Dallas, Tex: Southern Methodist University Press; 1989. (2) White RB. *Please Let Me Die* [videotape]. Galveston: Department of Psychiatry, University of Texas; 1974. (3) *Dax's Case* [videotape]. New York: Concern for Dying; 1985.

**Case 7:** The Barber and Nedjl Case: Alleged murder by withdrawal of medical treatment (ventilator, intravenous lines, and a nasogastric feeding tube). *Barber v. Superior Court*, 147 Cal. App.3d 1006, 195 Cal. Rptr. 484 (1983).

Clarence Herbert had been a patient in a hospital in Los Angeles, California in May 1981, undergoing an ileostomy. He returned to the hospital for closure of the ileostomy on August 26th, but sustained cardiorespiratory arrest following the closure. His surgeons were Drs. Barber and Nedjl. The medical consensus was that he had irreversible brain damage and was terminal. On August 28th his family informed his surgeons and the other physicians caring for him that they wished “all machines taken off that are sustaining life.”

On August 30th, the patient's ventilator was discontinued but he continued to breathe unassisted. On August 31st, his physicians ordered withdrawal of his intravenous hydration lines and the nasogastric feeding tube in conformity with the family's wishes; approximately 6 days later Mr. Herbert died.

On the complaint of a nurse concerning the withdrawal of food and water from the patient, the district attorney of Los Angeles County indicted the physicians for murder. The court of first instance dismissed the case. The case was reopened 2 years later in the California Superior Court because the Superior Court judges ruled that the lower court's dismissal was erroneous.

The Superior Court found that prior to his surgery Mr. Herbert had not executed a directive for the withholding or withdrawing of life-sustaining procedures in the event that he might later suffer a terminal condition. This action was required by the natural death act then in force in the state of California. The Superior Court found the physicians guilty as charged, but, upon appeal, the California Court of Appeals reversed the decision and exonerated the physicians.

The latter court, in its opinion, equated use of intravenous nourishment with the use of a ventilator. It considered intravenous nourishment and hydration a medical treatment. The court ruled that there is no duty to utilize life-sustaining medical treatment when there is no hope of a return to a cognitive, sapient state.<sup>1</sup>

Adapted with permission from Devettere RJ. *Practical Decision Making in Health Care Ethics: Cases and Concepts*. 2nd ed. Washington, DC: Georgetown University Press 2000: 274–279.

Additional source: (1) Paris JJ, Reardon FE. Court responses to withholding or withdrawing artificial nutrition and fluids. *JAMA*. 1985;253(15):2243–2245.



**Case 8:** The Conroy Case: Standards for determining action including consideration of the burdens-benefits ratio; withholding food and fluids by withdrawal of a nasogastric tube in a demented but conscious patient. *In the Matter of Claire C. Conroy*, 98 NJ. 321, 356–357, A.2d 1209 (NJ. 1985).

Claire Conroy, a resident for 7 years in a nursing home in New Jersey, had generalized arteriosclerosis, hypertension, and diabetes mellitus. In addition she had multi-infarct dementia. She would respond to verbal stimuli only occasionally, and then by a moan. She was incontinent of urine and feces. Because she was unable to swallow naturally, she was fed by a nasogastric tube. Her nephew, as her self-appointed guardian, felt that treatment was simply prolonging her dying and requested the court of first instance to permit removal of the nasogastric tube. (Her nephew would in no way monetarily or otherwise have benefited by her death.) Ms. Conroy's physician felt removal of the nasogastric tube would be an unethical medical practice. The court-appointed guardian *ad litem* also opposed the request.

The trial court ruled that the nasogastric tube could be removed from this severely demented but conscious woman, reasoning that the treatment was intolerably burdensome for her. The decision was appealed by the guardian *ad litem* and the order was stayed. Ms. Conroy died while the appeal was pending. The Appellate Court did not consider the appeal moot by virtue of her death; it felt the issue was too important to be left undecided. The decision of the Appellate court reversed the trial court's judgment. It ruled that the removal of the nasogastric tube would be euthanasia by dehydration and starvation.

The patient's nephew, convinced of the appropriateness of his original request, appealed the ruling to the New Jersey State Supreme Court, the same court that had decided the Quinlan case in 1976. In January 1985, the court decided that an incompetent person had the same right as a competent adult to self-determination. The court stated: "The right of an adult who, like Claire Conroy, was once competent, to determine the course of her medical treatment remains intact even when she is no longer able to assert that right or to appreciate its effectuation." The court ruled that a substitute decision maker must be called upon to function for the incompetent patient.

The court established three standards in its ruling. The first was a "subjective standard" regarding when withdrawal of life-sustaining treatment is permitted, that is, when it is clear that the particular patient would have refused the treatment under the given circumstances. This intent could be deduced from oral or written statements made by the person, when competent, to others, or when the patient had executed a durable power of attorney, or when appointment of a proxy had taken place who was authorized to make medical decisions on the patient's behalf. The second standard was a "limited objective test." Life-sustaining treatment could be withheld or withdrawn when there is clearly good and sufficient evidence that the patient would have refused treatment and the guardian is satisfied that the burdens of the patient's continued treatment outweigh the benefits of the continued treatment for that patient. The third standard is a "pure objective test." In consideration of the application of this test, it would be very clear, the court said, that the burdens of the patient's life with continued treatment markedly outweigh the benefits the patient derives from life with the continued treatment.

The court established a strict procedure to be followed when applying the third or "pure objective test." This involves the selection of an advocate, external to the nursing home and treating physicians, to serve as a rigorous protector of the weak and vulnerable incompetent nursing home patient. This establishes a procedure whereby if the objective test is met, the implementation of the decision does not have to be ordered by the court.

**Case 9:** The Brophy Case: Substituted judgment; withholding administration of food and fluids by withdrawal of a gastrostomy feeding tube in a patient in the persistent vegetative state. *Brophy v. New England Sinai Hospital, Inc.*, 398 Mass. 417, 497 NE.2d 626 (1986).

On 22 March 1983, Paul Brophy, a fireman in Easton, Massachusetts, suffered a subarachnoid hemorrhage as a result of the rupture of an aneurysm of the Circle of Willis. The aneurysmal rupture was surgically repaired, but he never regained consciousness. After intensive treatment at the New England Medical Center in Boston, he was transferred to the Sinai Hospital, a chronic disease and rehabilitation institution. He was fed by tube gastrostomy. Physicians, including expert neurologists, diagnosed the patient as being in a permanent vegetative state. His vital functions were sustained by fluids and food administered by gastrostomy tube, which his wife felt to be extraordinary medical treatment and not obligatory.

His wife, with the concurrence of their children, the patient's 91-year-old mother, his four brothers, and his three sisters, requested on 6 February 1985 that the court issue a judgment giving her full power to authorize the withholding or withdrawal of all medical treatments for her husband, including artificial provision of nutrition and hydration.

This action was opposed by the Sinai Hospital as well as the two physicians caring for him, Drs. Lajos Koncz and Richard Field. They felt that such an order to remove the feeding tube and starve the patient would be antithetical to their roles as ethical physicians. (Dr. Koncz, an émigré physician from Austria, fled that country after Hitler invaded Austria and annexed it to Nazi Germany. Dr. Field, a native-born American, had been a soldier in World War II and was among the first American troops to enter the Nazi concentration camp at Dachau and liberate its inmates.)

There was a well-publicized trial without jury and with many groups giving testimony as friends of the court (the majority supporting Mrs. Brophy's request). The trial judge, David Kappelman, ordered the hospital to forego active medical intervention that would seek to delay or reverse an imminent life-threatening change of condition, in accordance with the previous authorization of the patient's wife and guardian, but he enjoined the hospital and staff from removing the feeding tube. In the event that Mrs. Brophy, who was appointed guardian by the court, might transfer her husband to another medical care facility, Judge Kappelman permanently enjoined her from authorizing any facility to remove or clamp the gastrostomy tube for the purpose of denying the patient hydration and nutrition required to sustain life.

The case was appealed to the Supreme Judicial Court of the Commonwealth of Massachusetts. In September 1986, in a 4-to-3 decision, the court found that artificial feeding is an "intrusive" procedure that one should be able to refuse without being accused of committing suicide. The court based its reasoning on the right to privacy and finding that right to supercede any state's interest in preserving life, protecting innocent third parties, preventing suicide, or maintaining the medical profession's ethical integrity. The court ordered removal of the feeding tube; 8 days later Mr. Brophy died.

Source: Steinbrook R, Lo B. Artificial feeding: Solid ground, not slippery slope. *N Engl J Med.* 1988;318(5):286–290.

**Case 10:** The Baby M Case: Surrogate motherhood and custody. *Matter of Baby M*, 537 A.2d. 1227, 109 N.J. 396 (1988).

Mr. and Mrs. William Stern signed a contract in February 1985 with Mrs. Mary Beth Whitehead of Brick Township, New Jersey. The contract, which had been arranged by the Infertility Center of New York, provided that Mrs. Whitehead would bear a child for the Sterns by artificial insemination by donor (AID). She agreed in the contract "that in the best interests of the child...she may conceive...[that she] shall freely surrender custody to William Stern, Natural Father, immediately upon birth of the child; and terminate all parental right to said child pursuant to this agreement." Mrs. Whitehead was to receive \$10,000 for services and expenses. All of her medical, legal, and insurance expenses were also to be met.

The child was born on 27 March 1986. Mr. Whitehead did not wish to give the baby up but finally relinquished the infant to the Sterns on March 30. Mrs. Whitehead did not ac-

cept the \$10,000 fee. A few days later, Mrs. Whitehead went to the Stern residence and asked to see the baby and begged the Sterns to let her take the baby home for a week. The Sterns agreed. Mrs. Whitehead and her husband then refused to return the child to the Sterns. The Sterns asked the family court to give them temporary custody, which it did.

When six policemen arrived at front door of the Whitehead home to enforce the court's order, Mrs. Whitehead passed the child out a back window of the house to her husband, who eluded the police and left with the baby. Mrs. Whitehead was able to join her husband and the child without being detected. The Whiteheads eluded law enforcement officers for 3 months, but finally were located in Florida and the child was returned to the Sterns.

The order of the family court judge was extended and the judge awarded limited visitation rights to Mrs. Whitehead. A court ordered paternity test made it clear that Mrs. Whitehead's husband, who had previously undergone vasectomy, could not be the father of the child. A lengthy trial followed. Judge Sorkow of the family court ruled that the surrogacy contract was valid and enforceable. He then terminated Mrs. Whitehead's parental rights, awarded sole custody of the child to Mr. Stern, and granted Mrs. Stern an order of adoption. He ruled that enforcement of the surrogacy contract was in the best interests of the child.

The case was appealed to the New Jersey Supreme Court which ruled in February 1988. The court held that a surrogacy contract that provides money to the surrogate mother, and requires her irrevocable agreement to surrender her child at birth, is invalid and nonenforceable. It ruled that such a contract violates New Jersey statutes that prohibit the use of money in connection with adoptions, that limit termination of parental rights to situations in which there has been a valid showing of parental unfitness or abandonment of the child, and that allow a mother to revoke her consent to surrender her child in private-placement adoption.

The court also ruled that the surrogacy contract conflicts with the state's public policy that custody be determined on the basis of a child's best interests, that children be brought up by their natural parents, that the rights of the natural mother and the natural father are equal, that a natural mother receive counseling prior to giving up a child for adoption, and that adoptions not be influenced by the payment of money. All these provisions of the contract were in violation of the statutes of New Jersey concerning adoptions.

The New Jersey Supreme Court did affirm the lower court's grant of custody to the natural father but reversed the lower court's termination of the natural mother's parental rights and the granting of an order for adoption to Mrs. Stern. The court required the lower court to determine the terms of the natural mother's visitation with the child.

Adapted with permission from Beauchamp TL, Childress JF. *Principles of Biomedical Ethics*. 3rd ed. New York: Oxford University Press; 1989: Appendix.

**Case 11:** The Cruzan Case: The state's role in setting standards for substituted judgment; withdrawal of artificially administered hydration and nutrition administered by gastrostomy tube in a patient in the persistent vegetative state, the first such case considered by the Supreme Court of the United States. *Cruzan v. Director, Missouri Department of Health, et al*, No. 88-1503, 497 U.S. 261 (1990).

Nancy Cruzan suffered near fatal injuries in an automobile accident. The severity of her injuries were such that at the scene of the accident she was found by the emergency medical technicians to be without heartbeat or respirations and was thought to be dead. Cardiopulmonary resuscitative measures immediately applied by the technicians restored heartbeat and respirations. Nancy, however, never regained consciousness. After her hospital treatment for her acute injuries, she was transferred to the Missouri Rehabilitation Hospital, where she remained in a permanent vegetative state for 5 years.

The request of Joe Cruzan, her father as well as her guardian, to stop artificially administered food and fluid was refused by the attending physicians, the nursing staff caring for

her, and the administration of the Missouri Rehabilitation Hospital. A lengthy legal process ensued.

The case was finally heard by the Supreme Court of the State of Missouri, which ruled against the father's request. In its published opinion it stated that Mr. Cruzan had not been able to present persuasive evidence that cessation of treatment would have clearly been Nancy's wish. He could not present direct evidence that satisfied that court that she had expressed such an opinion when she was a fully competent individual. The appeal by her father to the Supreme Court of the United States was heard in January 1990.

The court ruled in June 1990 that a competent citizen has the right to reject medical treatment under the Fourteenth Amendment to the US Constitution, the so-called "Liberty" amendment ("All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws."<sup>1</sup>[§1]). The Supreme Court did not find this right in the so-called "right to privacy" that it had previously found in the "penumbra" of the Constitution when ruling on previous cases, such as *Griswold v the State of Connecticut*<sup>2</sup> (prohibiting the use of condoms in the act of sexual intercourse by marital partners) or in the ruling that legalized abortion in the United States in the case of *Roe v Wade*.<sup>3</sup> The court also found that a state acting in the role of "parens patriae" in protecting the life of its citizens is free to set standards of proof for determining the wishes of once competent patients. It also ruled that states are free to dictate decision-making standards surrogates must follow if an incompetent patient's wishes are not known or are not proven to that particular state's satisfaction. Finally, the court found that foregoing artificial nutrition and hydration is no different than foregoing any other medical treatment. In summary, the Supreme Court's June 1990 decision<sup>4</sup>:

- did not alter existing law;
- did affirm the rights of competent patients;
- declared that states are free to set standards of proof for determining wishes of once competent patients;
- declared that states are free to dictate decision-making standards surrogates must follow if patient's wishes are not known or not proven to the state's satisfaction; and
- declared that foregoing artificial nutrition and hydration is no different than foregoing other forms of life-sustaining treatment.

This decision encouraged the general discussion of euthanasia and assisted suicide in the United States.<sup>5</sup> It also accelerated the debate in several state legislatures concerning legalizing physician-assisted suicide and euthanasia.<sup>6</sup> Professional healthcare organizations, such as the American Medical Association and the American Nurses Association, reviewed their standing policies on these issues<sup>7,8</sup> and revised them. The Congress of the United States, in response to the decision, and wishing to provide legal protection for incompetent patients regarding their wishes for terminal care, enacted the "Self-Determination Act of 1991."<sup>9</sup>(¶4206, ¶4751) The provisions of this act are that representatives of healthcare institutions must<sup>4</sup>:

- provide written information to patients at admission, which includes a statement of the patient's healthcare decision-making rights under state law and a description of the facility's policies for implementing such rights;
- ask newly admitted patients whether they have an advance directive and document response in their medical record;
- not discriminate in the provision of care based on whether or not a patient has an advance directive;
- ensure compliance with state laws regarding advance directives; and
- educate staff and the community on issues concerning advance directives.



After the Supreme Court handed down its decision, there was a great deal of publicity concerning the “Cruzan Case.” An individual who had known Nancy Cruzan only by her married name, which was Nancy Davis (Nancy’s husband had divorced her after the accident), and thus had not realized previously that Nancy Cruzan was someone she knew, now came forward. This former acquaintance gave evidence that Nancy had always said that she never wanted to be a “Karen Ann Quinlan Case” if she were fatally injured or terminally ill but would want all treatment stopped and be allowed to die. The court of first instance accepted this evidence and, in accordance with the decision of the Supreme Court, honored the request of Nancy’s guardian, her father, and permitted the artificial administration of nutrition and hydration to be stopped. Nancy died approximately 6 days later.

Adapted with permission from: (1) Munson R. *Intervention and Reflection: Basic Issues in Medical Ethics*. 4th ed. Belmont, Calif: Wadsworth Publishing Co; 1992: 142–144; (2) Pence GE. *Classic Cases in Medical Ethics: Accounts of Cases That Have Shaped Medical Ethics, With Philosophical, Legal, and Historical Backgrounds*. 2nd ed. New York: McGraw-Hill; 1995: 17–20; (3) Beauchamp TL, Childress JF. *Principles of Biomedical Ethics*. 3rd ed. New York: Oxford University Press; 1989: Appendix.

Additional sources: (1) Amendment XIV to the Constitution of the United States. Available at: <http://www.nara.gov/exhall/charters/constitution/amendments.html>. Accessed 31 May 2000. (2) *Griswold v. Connecticut*, 381 U.S. 479 (1965). (3) *Roe v. Wade*, 410 U.S. 113 (1973). (4) Fry-Revere S. Written communication, 1995. (5) Siegler M, Gomez C. Conference: US consensus on euthanasia? *Lancet*. 1992;339:1164. (6) Hentoff N. The slippery slope of euthanasia. *Washington Post*. 3 October 1992:A21. (7) American Medical Association, Council on Scientific Affairs and Council on Ethical and Judicial Affairs. Persistent vegetative state and the decision to withdraw or withhold life support. *JAMA*. 1990;263(3):426–430. (8) American Nurses Association Task Force on the Nurse’s Role in End of Life Decisions. *Foregoing Artificial Nutrition and Hydration* (Position Statement). Washington, DC: American Nurses Association; 1992. (9) Omnibus Budget Reconciliation Act of 1990. Washington DC: US Government Printing Office; 1990. [Publication #101-508].

**Case 12:** The Timothy E. Quill, “Jane Roe,” et al Case: Physician assisted suicide, denial by the Supreme Court of the United States. *Dennis C. Vacco, Attorney General of New York, et al, Petitioners v. Timothy E. Quill, et al, Respondents*, No. 95-1858, 521 U.S. 793 (1997).

In July 1994, Dr. Howard Grossman and Dr. Samuel Klagsbrun of New York City, and Dr. Timothy Quill of Rochester, New York, and a group of dying patients including William Barth, an AIDS patient in New York City, and Rita Barrett, a cancer patient of Oceanside, New York, filed a lawsuit in the Federal District Court arguing that physicians should be allowed to provide lethal medication, with safeguards, to willing patients within 6 months of their deaths. Identified only as “Jane Roe” in the lawsuit, the case of Rita Barrett highlighted the agonizing choices for patients and doctors in deciding what’s best in the final stages of dying. Rita, a formerly very vibrant gym teacher, had terminal cancer. In the papers filed with the court, she said: “I was able to put two of my dogs to rest when they were suffering from painful, incurable diseases and yet I do not, as a conscious and competent adult, have the freedom to opt for the same humane end to my life. This is wrong.” In August 1994, Barrett died at her home in Oceanside, 1 month after the lawsuit began. Before the end of 1994, all the patients who had joined in the lawsuit were dead; only the three physicians remained as plaintiffs in the lawsuit.

These individuals sued the State’s Attorney General, claiming that the state’s ban on physician-assisted suicide violates the Fourteenth Amendment’s equal protection clause



because New York State permits a competent person to refuse life-sustaining medical treatment and because the refusal of such treatment is “essentially the same thing” as physician-assisted suicide. The Federal District Court disagreed, but the Second Circuit Appellate Court reversed that decision, holding that New York accords different treatment to those competent, terminally ill persons who wish to hasten their deaths by self-administering prescribed drugs than it does to those who wish to do so by directing the removal of life-support systems, and that this alleged unequal treatment is not rationally related to any legitimate state interests. The Appellate Court held that New York State’s prohibition on assisting suicide does violate the equal protection clause. The case was appealed to the Supreme Court of the United States and was argued before that court on 8 January 1997. Its decision was handed down on 26 June 1997.

The court, in its opinion written by the Chief Justice with the concurrence of all the Justices, said:

The New York statutes outlawing assisted suicide neither infringe fundamental rights nor involve suspect classifications...and are therefore entitled to a strong presumption of validity....On their faces, neither the assisted suicide ban nor the law permitting patients to refuse medical treatment treats anyone differently from anyone else or draws any distinctions between persons. Everyone, regardless of physical condition, is entitled, if competent, to refuse unwanted lifesaving medical treatment; no one is permitted to assist a suicide. Generally, laws that apply evenhandedly to all unquestionably comply with equal protection....This Court disagrees with the Second Circuit’s submission that ending or refusing lifesaving medical treatment “is nothing more nor less than assisted suicide.” The distinction between letting a patient die and making that patient die is important, logical, rational, and well established: it comports with fundamental legal principles of causation...and intent,...has been recognized, at least implicitly, by this Court in *Cruzan v. Director, Mo. Dept. of Health*,...and has been widely recognized and endorsed in the medical profession, the state courts, and the overwhelming majority of state legislatures, which, like New York’s, have permitted the former while prohibiting the latter. The Court therefore disagrees with respondents’ claim that the distinction is “arbitrary” and “irrational.” The line between the two acts may not always be clear, but certainty is not required, even were it possible. Logic and contemporary practice support New York’s judgment that the two acts are different, and New York may therefore, consistent with the Constitution, treat them differently.

The opinion went on to say:

New York’s reasons for recognizing and acting on the distinction between refusing treatment and assisting a suicide—including prohibiting intentional killing and preserving life; preventing suicide; maintaining physicians’ role as their patients’ healers; protecting vulnerable people from indifference, prejudice, and psychological and financial pressure to end their lives; and avoiding a possible slide towards euthanasia—are valid and important public interests that easily satisfy the constitutional requirement that a legislative classification bear a rational relation to some legitimate end.

Thus, the court reversed the Second Circuit Appellate Court and declared that the statute of New York State that prohibited physician-assisted suicide was not in violation of the 14th Amendment’s equal protection clause. In short, the court found no right of citizens to assisted suicide in the Constitution of the United States. The effect of this is to prohibit physician-assisted suicide in all the states and territories of the United States until individual states or territories, by legislative action, permit such acts in their particular jurisdictions.

The citizens of the state of Oregon were the first to initiate such a process through the approval, on 8 November 1994, by referendum, of the "Death with Dignity Act," a statute previously enacted by the Oregon legislature. This statute permitted physicians, under certain stipulated conditions, to prescribe lethal doses of barbiturates to patients who were suffering from an incurable illness and whose death could be predicted within 6 months. Several court challenges to invalidate the action of the legislature as well as the results of the 1994 referendum were unsuccessful.

In 1997, a second referendum, approved by 60% of Oregon's electorate, reaffirmed the wishes of Oregon's citizens in this matter. The governor signed the statute permitting physician-assisted suicide into law on 27 October 1997. In the first full year of this law, 15 deaths occurred under this act, out of a total of some 25,000 deaths statewide. On 27 September 1999, the US House of Representatives passed HR 2260, the "Pain Relief Promotion Act." The Senate adjourned 15 December 2000 without considering the measure. If this legislation does pass the US Congress and is signed into law by the President, it would effectively invalidate Oregon's law permitting physician-assisted suicide. The "Pain Relief Promotion Act" prevents the use of controlled substances by physicians to implement provisions in a law such as in Oregon's "Death with Dignity Act." This federal act would permit investigators of the federal Drug Enforcement Agency (DEA) to determine whether an Oregon physician, when prescribing controlled substances that hasten death, intended thereby only palliative care for the patient or assistance in an act of suicide by the patient. If the decision made by an anonymous federal investigator of the DEA were assistance in suicide, the physician would be liable for trial for an act of criminal homicide and would be subject to possible imprisonment for life.

This action of the House of Representatives was criticized in press editorials such as the one in *The Washington Post*<sup>1</sup> and in published opinions (also in *The Washington Post*) such as one written by Oregon's governor, Dr. John A. Kitzhaber,<sup>2</sup> a physician. These communications argue that because the Supreme Court of the United States found no constitutional right to physician-assisted suicide, this policy area should be left to the states to decide according to their own democratic processes. Justice Sandra Day O'Connor made this same suggestion in her concurring opinion in the New York cases mentioned above. She wrote: "This question (assisted-suicide) should be left to the laboratory of the states." The action by the House of Representatives raises anew the vexing questions concerning the struggle between federalism and states' rights. This surely is not the last to be heard concerning states' rights in this matter.

Adapted with permission from Pence GE. *Classic Cases in Medical Ethics: Accounts of Cases That Have Shaped Medical Ethics, With Philosophical, Legal, and Historical Backgrounds*. 2nd ed. New York: McGraw-Hill; 1995: 72–73.

Additional sources: (1) Editorial. *The Washington Post*. 1 November 1999; A-26. (2) Kitzhaber JA. Congress's medical meddlers [editorial]. *The Washington Post*. 2 November 1999; A-21.

# Chapter 4

## THE SCIENCE BEHIND THE ART: EMPIRICAL RESEARCH ON MEDICAL ETHICS

DANIEL P. SULMASY, OFM, MD, PhD\*

---

### INTRODUCTION

### TYPES OF ETHICAL INQUIRY

### TYPES OF STUDIES IN DESCRIPTIVE ETHICS

- Anthropology
- Sociology
- Epidemiology
- Health Services Research
- Psychology

### THE RELATIONSHIP BETWEEN DESCRIPTIVE AND NORMATIVE BIOETHICS

- Ethics and Opinion Surveys
- The Fact/Value Distinction
- Illicit Inferences
- Empirical Studies and Normative Ethics
- Normative and Descriptive Ethics: Two-Way Feedback

### JUDGING GOOD DESCRIPTIVE ETHICS

- Survey Research
- Qualitative Research
- Multimethod Research
- Experimental Methods
- Theoretical Framework
- Biases in Empirical Research on Ethics
- Detached Disinterest

### RESOURCES IN ETHICS

- National Reference Center for Bioethics Literature
- Bioethicsline
- Bioethics Journals
- The Internet

### DESCRIPTIVE BIOETHICS AND MILITARY MEDICINE

### CONCLUSION

\*Professor of Medicine and Director of the Bioethics Institute, New York Medical College, Valhalla, New York; and Sisters of Charity Chair in Ethics, John J. Conley Department of Ethics, Saint Vincent's Hospital and Medical Center, 153 West 11th Street, New York, New York 10011; formerly, Associate Professor of Medicine, Georgetown University; and Director, Center for Clinical Bioethics, Georgetown University Medical Center, Washington, DC



J.O. Chapin

*Doctor's Heritage*

1944

The last of seven images from the series *The Seven Ages of a Physician*. The series depicts the life progression of a doctor from birth to first encounter with suffering, through medical training, professional experience, service to country during war, and research to further knowledge. In this final painting in the series, the doctor's heritage is that of passing along to the next generation his knowledge and vision regarding how to best be a physician. That involves not just understanding the basics of medicine, as depicted in the right half of the painting, but also understanding medicine in a more complete context, which is symbolized in the left side of the painting with the globe, the skull, and the book. The wisdom that he passes on includes understanding how doctors make decisions regarding patients—the very essence of being a complete physician—and the focus of this chapter.

Art: Courtesy of Novartis Pharmaceuticals.

## INTRODUCTION

With characteristic elegance, Aristotle once said that ethics is “about what to do.”<sup>1(1103b.28–31)</sup> If ethics is truly as broad as that, then many sorts of ethical questions will inevitably arise, even if one limits the sphere of inquiry to biomedical ethics. A philosopher might be inclined to ask, “How does a physician ever *know* the right thing to do in any given situation?” A physician might be more inclined to ask simply, “What ought I to do with this patient now?” A government agency or a disinterested social scientist might be inclined to ask, “What do physicians usually do in that situation?” And physicians might ask a health services researcher, “What data can you give me to help me to decide what I ought to do?”

The latter two questions are empirical questions. And because contemporary Western medicine is based upon empirical science, it was inevitable that physicians should begin to engage in empirical research in bioethics. In fact, empirical studies now constitute the most prevalent form of articles on bioethics published in the medical literature. But many readers remain puzzled by empirical research in bioethics.

This chapter addresses some of these questions.

The chapter begins by distinguishing empirical ethics from other sorts of ethical inquiry, then provides an overview of the kinds of empirical studies that count as empirical research in bioethics. The chapter discusses criteria for quality in evaluating empirical research in bioethics, and describes the proper relationship between empirical bioethics and philosophical bioethics.

The range of studies falling under the broad canopy of “empirical bioethics” is truly astounding. The disciplines of sociology, anthropology, social psychology, economics, epidemiology, and health services research (to name just a few) all have scholars who “do” bioethics, and all these disciplines have made enriching contributions to the field. These types of research begin with empirical observations, and take empirical observation as their standard of validity. It is not always immediately clear, however, that these types of research should have anything whatsoever to do with ethics. And so it is necessary, at the outset, to understand the nature of empirical research in ethics broadly.

## TYPES OF ETHICAL INQUIRY

There are three basic types of ethical inquiry—normative ethics, metaethics, and descriptive ethics.<sup>2</sup>

*Normative ethics* is the type of ethical study that is most familiar. Normative ethics is the branch of philosophical or theological study that sets out to give answers to the questions, “What ought to be done? What ought not to be done? What kinds of persons ought we strive to become?” Normative ethics sets out to answer these questions in a systematic, critical fashion, and to justify the answers that are offered. In bioethics, normative ethics is concerned with arguments about such topics as the morality of physician-assisted suicide and whether so-called partial birth abortions are ever morally permissible. Normative ethics constitutes the core of all ethical inquiry. It is because of the normative questions at stake that other types of ethical inquiry have their point.

*Metaethics* is the branch of philosophical or theological inquiry that investigates the meaning of moral terms, the logic and linguistics of moral reasoning, and the fundamental questions of the nature of good and evil, how one knows what is right or wrong, and what sorts of arguments can be used

to justify one’s moral positions. It is the most abstract type of ethical inquiry, but it is vital to normative investigations. Whether or not it is explicitly acknowledged, all normative inquiry requires some sort of a stand regarding metaethical questions. Metaethics asks, “What does ‘right’ mean? What does ‘ought’ mean? What is implied by saying ‘I ought to do X’? Is morality objective or subjective? Are there any moral truths that transcend particular cultures? If so, how does one know what these truths are?” Stands regarding all of these questions lurk below the surface of most normative ethical discussions, whether in general normative ethics, bioethics, or military bioethics. Sometimes it is only possible to understand the grounds upon which people disagree by investigating questions at this level of abstraction. In most cases, however, there is enough general agreement that normative inquiry can proceed without explicitly engaging metaethical questions.

The concern of this chapter, however, is the third type of ethical inquiry, *descriptive ethics*. Descriptive ethics does not directly engage the questions of what one ought to do or of how people use ethical



terms. Descriptive ethics asks empirical questions such as, “How do people think they ought to act in this particular area of normative concern? What facts are relevant to this normative ethical inquiry? How do people actually behave in this particular circumstance of ethical concern?” In bioethics, the literature is replete with descriptive ethics’ studies such as surveys asking what patients and physicians think about the morality of euthanasia and assisted suicide, or about how much money might be saved

through the widespread use of advance directives, or about what percentage of unwed women who become pregnant choose to undergo elective abortion.

No descriptive ethics study ever answers a normative question about what should be done. That is a matter for normative ethics. Yet, descriptive ethics can be very helpful to normative inquiry, and normative inquiry can be helpful to descriptive ethics as well. I will return to these themes in more detail later in this chapter.

## TYPES OF STUDIES IN DESCRIPTIVE ETHICS

Because good ethics always depends upon good facts, almost any empirical field might be able to make a contribution to descriptive ethics. Nonetheless, there are certain techniques and certain disciplines that are especially well-suited to descriptive research in bioethics. A comprehensive survey of all empirical studies that have contributed to bioethics would be well beyond what could be accomplished in a single chapter. This chapter will instead briefly discuss those empirical fields most often used. Readers interested in exploring this subject further are encouraged to read *Methods in Medical Ethics*.<sup>3</sup>

### Anthropology

Perhaps the first empirical field to have made contributions to descriptive ethics is anthropology. Anthropology has made, and continues to make, many significant scholarly contributions to bioethics. Questions about cultural variations in approaches to matters of moral concern have been of interest since at least the time of Aristotle,<sup>1(1148b.20–24)</sup> challenging assumptions about the relationship between morality and culture. Classical investigations have included studies of child rearing in various cultures by such preeminent figures as Margaret Mead.<sup>4</sup> Studies in multiple cultures of the treatment of infants born with various deformities have also had an influence on contemporary bioethics, challenging contemporary Western prohibitions on practices such as infanticide.<sup>5</sup> Contemporary ethnographic techniques have been used to study, for instance, the difficulties involved in implementing the federal government’s *Patient Self-Determination Act* on Navajo Indian reservations.<sup>6</sup> Other studies have attempted to use ethnographic analysis to study differences in the role of the family vs autonomous individuals in bioethical decision making among Chinese and Latino cancer patients in

California.<sup>7</sup> Anthropological studies have explored the distinctive culture of surgeons as well, examining how that culture affects selection, training, and professional demeanor of surgeons.<sup>8</sup> Still other investigators have used conversational analysis of transcripts of audiotapes of physician–patient interactions to describe certain styles of physician verbal behavior and how these relate to patient satisfaction and malpractice risk.<sup>9</sup> All of these sorts of studies help to broaden our understanding of multiple issues in contemporary bioethics. Anthropological studies have also raised troubling normative questions about such issues as the meaning of the Western notion of informed consent in other cultural settings. For example, anthropologists have looked at the question of the meaning of informed consent in vaccine trials in Africa in which individuals defer decision making to their tribal chief.<sup>10</sup>

Anthropology provides fascinating insights into the status quo of the physician–patient relationship in the West as well, raising questions about whether reform might be called for. Anthropologists will continue to make contributions to bioethics as the field enters the 21st century.

### Sociology

Sociology has also played an important role in descriptive bioethics. Renee Fox was among the pioneers in the field, lending her expertise as a sociologist to such questions as the Hopkins Baby case,<sup>11</sup> dialysis, and organ transplants.<sup>12</sup> Sociologists have also studied the training of physicians, with a keen eye towards the ways in which the training influences the style and the content of ethical decision making by physicians.<sup>13</sup> Still others have studied such phenomena as partial codes (ie, “chemical code only,” or “CPR [cardiopulmonary resuscitation] but no intubation”), noting how these often arise in the setting of disputes between staff and

family members.<sup>14</sup> In another important example, the President's Commission sponsored a sociological study of informed consent in clinical practice.<sup>15</sup> The chief techniques employed by sociologists have included both detailed interviews and participant-observer studies. In participant-observer studies, the investigator inserts himself or herself into the routine of clinical practice, developing enough trust, and blending well enough into the routine to minimize the impact of his or her presence, while preserving enough objectivity as an outside observer to describe effectively and comment upon the processes under observation.<sup>16</sup> These studies hold up a mirror in which members of the healthcare profession can gain insight into their behaviors regarding matters of bioethical concern.

### **Epidemiology**

Another discipline that has made important contributions in the field of descriptive bioethics has been epidemiology, a branch of medical research that counts the incidence and distribution of health problems in a population. Beginning in the late 1970s, physician researchers trained in epidemiology began to conduct empirical studies regarding bioethics. As people who count, epidemiologists began to sound a more quantitative note that had not been evident in the bioethics studies of sociologists and anthropologists. Early studies were literally studies that counted the frequency of certain clinical events of bioethics interest, such as the frequency of ethical dilemmas on an internal medicine service or the frequency with which DNR (do not resuscitate) orders were written.<sup>17</sup> These studies began to appear in leading journals of clinical medicine. Moral dilemmas had been encountered for centuries in medical practice, and DNR orders had been around for a long time, but these studies brought new attention to bioethics by bringing these issues to the attention of clinicians. Moreover, they made irrefutable what had been argued by more philosophically minded bioethicists before—the practice of medicine is laced through and through with bioethical decision making.

### **Health Services Research**

Epidemiology, along with several other fields, has contributed to the burgeoning field of health services research. Many bioethical issues have been addressed by studies in the field of health services research. Investigators in this field use opinion sur-

veys, validated instruments regarding quality of life, decision analysis, technology assessment, enormous insurance claims' data sets, chart reviews, and even randomized controlled trials to study the delivery of healthcare services. These studies have looked at questions of ethical concern such as the care of the dying,<sup>18</sup> factors associated with the writing of orders not to resuscitate,<sup>19</sup> the implementation of euthanasia in the Netherlands,<sup>20</sup> the quality of care delivered by managed care organizations,<sup>21</sup> patient perceptions of informed consent,<sup>22</sup> and many other areas. The standards with which such research is conducted have become quite high.

### **Psychology**

Finally, the field of psychology deserves special mention as a discipline that has made, and continues to make, important contributions to the field of descriptive bioethics. Kohlberg's theories of moral development have been used to conduct studies charting the moral development of medical students<sup>23</sup> and even of bioethicists.<sup>24</sup> Carol Gilligan and other critics have charged that Kohlberg's schema is biased by the fact that he exclusively studied boys and therefore overemphasizes the themes of justice and autonomy in his theory of moral development. They have launched a whole new school of thought in philosophical and theological bioethics known as care based ethics.<sup>25</sup> This school has had an especially strong influence on nursing ethics. Still others have used Bandura's social learning theory to look at the impact of ethics education on the knowledge, attitudes, and perceived self-efficacy (confidence) of medical house officers and faculty.<sup>26</sup>

Besides moral development and education, psychological theories and techniques have been used to look at morally important questions such as the anxiety associated with genetic testing<sup>27</sup> and ways to change sexual behavior among men at risk for HIV (human immunodeficiency virus) infection.<sup>28</sup> Still others have looked at such interesting questions as the ability of surrogate decision makers to predict what sorts of treatments their terminally ill loved ones would want in the event that they were to become unable to speak for themselves.<sup>29</sup>

While by no means exhaustive, this brief survey of empirical studies in bioethics from the fields of anthropology, sociology, epidemiology, health services research, and psychology serves to demonstrate the incredible breadth and variety of disciplines and techniques that contribute to descriptive bioethics. All are fascinating. All hold a definite

place in the bioethics of the future. The list could be expanded by adding other disciplines such as history, economics, education, public policy, government, decision science, and others. In addition, fields that are less clearly empirical, such as law and

literature, could be added. But as I noted above, none of these studies directly addresses the normative question that is at the heart of bioethics—what ought to be done. What then is the place of empirical research in bioethics?

## THE RELATIONSHIP BETWEEN DESCRIPTIVE AND NORMATIVE BIOETHICS

### Ethics and Opinion Surveys

Surveys do not give normative answers to moral questions. In a pluralistic and increasingly multicultural democratic republic like the United States, in which the rule of law is predicated upon majority rule, this can sometimes be forgotten. As a tolerant society, we try to leave many questions unanswered by the law. And those questions that require an answer are settled by referenda or the votes of freely elected representatives. These democratic procedures settle the legal question.

But not everything that is legal is moral, and not everything that is moral is legal. Laws can be immoral. Segregation in the United States and apartheid in South Africa were legal in the recent past, but this does not mean that they were moral once, and then became immoral when the law changed. Majority rule, even by free election, can commit moral error. Adolph Hitler, after all, was made Chancellor of Germany by the vote of freely elected representatives in a democratic republic. In the end, ethics judges laws as morally good or morally bad.

And so, the opinion survey, a commonly used empirical technique in bioethics, should *never* be construed to give “the answer.” Rather, these surveys should be viewed as tools to examine whether one or another question is particularly vexing and divisive, or whether almost everyone agrees about the proper approach to the question. This may serve the purpose of helping to decide whether the question is worth discussing. If no one disagrees, there may be little to discuss. On the other hand, it might still be very interesting to develop good philosophical arguments about why, for example, patients ought to be afforded the opportunity to give informed consent before participating in clinical research. The reality is, however, that such a paper would be unlikely to wind up as the lead article in a popular clinical journal.

Surveys can also be used to say what other factors might be associated with particular opinions about moral issues, pointing out, for instance, significant cultural divides. Surveys can demonstrate racial differences such as the fact that African-Americans are less likely to support euthanasia than

are white Americans.<sup>30</sup> But it is critical to understand the limitations of such survey research in ethics.

### The Fact/Value Distinction

The limitations of survey research probably illustrate one aspect of a more general principle in ethics known as the fact/value distinction.<sup>31</sup> There is probably no single principle in ethics that is more important to discuss with respect to the relationship between descriptive and normative studies in bioethics. Most (but not all) ethicists subscribe to this fact/value distinction, which has also been called “the naturalistic fallacy.” It was originally proposed by David Hume in his *Treatise of Human Nature* in which he noted that many ethical arguments, particularly in scholastic philosophy, consisted of a series of factual statements using the verb ‘is,’ leading to a conclusion using the verb ‘ought.’<sup>32</sup> This struck Hume as peculiar. He wondered whether any set of facts ever added up, by itself, to entail a normative conclusion.

Over the ensuing centuries there have been many discussions of this principle. Some who have attacked the fact/value distinction have noted that certain “social facts” do appear to entail normative conclusions. John Searle points out that the *fact* that I made a promise to do something does seem to imply a normative conclusion, namely that I *ought* to do it.<sup>33</sup> Others have argued that certain facts about the role and purpose of something or someone also seem to entail normative conclusions. Alasdair MacIntyre<sup>34</sup> points out that the fact that something is a knife does entitle one to draw certain conclusions about what makes a knife “good” (eg, sharpness, sturdiness, and so forth). Likewise, he argues the fact that someone occupies a role as the practitioner of certain human practices *does* entitle one to draw certain conclusions about what makes that individual a good practitioner of that role (eg, the fact that someone is a soldier implies that if that person is a “good” soldier, one can expect courage, loyalty, dependability, and so forth). Similarly, one might say that the fact that someone is a physician entitles one to draw certain conclusions about what makes that person a “good” physician (eg, competence, compassion, respectfulness, and so forth).

## Illicit Inferences

So, it does seem that there are at least a few uncontroversial ways in which certain kinds of facts can entail normative conclusions, as well as some sense in which knowing the purpose or function of an object or enterprise says something regarding what is good or bad about it relative to its purpose or function. Nonetheless, there are also some uncontroversial ways in which Hume's warning about the fact/value distinction seems correct. Even defenders of the possibility of drawing normative conclusions from certain special sorts of facts tend to agree that the fact/value distinction holds true over a variety of other important sets of facts. The fact/value distinction holds true over the following five sets of facts that are important in empirical ethics research:

1. *Historical facts do not entail normative conclusions.* One might call this the historicist version of the naturalistic fallacy. For example, the mere fact that infanticide was practiced in the early Mediterranean world does not entitle one to conclude that there is nothing morally problematic about the practice. Likewise, knowing that payment for healthcare has never before been organized with financial incentives for physicians to provide fewer services does not entitle one to conclude that such payment structures are immoral. Whether something has or has not been done in the past does not mean that it is moral or immoral.
2. *Majority opinions and behaviors do not entail normative conclusions.* This has been discussed above regarding opinion surveys in bioethics. A survey demonstrating that 75% of people polled might approve of the use of surrogate mothers in certain circumstances would not entail that it is morally appropriate. Likewise, the fact that many physicians say that they are willing to falsify medical insurance claims in order to obtain better benefits for their patients does not imply that such practices are morally appropriate.<sup>35</sup> The fact that everyone says that something is proper, or that everyone acts in a certain way, does not make it proper to act that way. The appeal to popular opinion can sometimes amount to an example of the informal logical fallacy of the *argumentum ad populum*.
3. *The simple fact that something is legal or ille-*

*gal does not make it moral or immoral.* This was also discussed above. In general, the moral goodness of a just society will be reflected in its laws, but even Thomas Aquinas thought it unwise for a government to pass laws regarding all aspects of the moral life.<sup>36</sup> Such an effort would probably be impossible. And so, questions about the proper relationship between law and morality will be operative even in morally homogeneous societies. Nor does the fact that one might be sued constitute a moral argument. The threat of a lawsuit does not render a proposed course of action moral or immoral. Legal consequences are consequences to be weighed in making a decision with the same moral weight one generally gives to other types of consequences in making moral decisions. For example, if one is a strict deontologist, basing decisions solely upon doing one's duty, legal consequences will have no bearing on the decision whatsoever. For others, the threshold might vary for taking a moral stand depending upon practical concerns about consequences. Under threat of lawsuit, one might not want to make a moral weighed daily, even though one might beneficently think this, from a moral point of view, in the patient's best interest. Nonetheless, fidelity to patients and professional integrity does sometimes demand that one do what one thinks to be morally correct even under threat of lawsuit. In the end, law does not give the answer. To illustrate this, there are even cases in which one can be sued no matter which course of action one pursues. Consider a patient who clearly expresses her wishes not to be placed on a ventilator and then goes into a coma. Suppose her husband the lawyer then demands that she be intubated when she develops respiratory distress. In such a case one could be sued no matter what course one were to pursue. Successfully resuscitating the patient could invite her to sue for battery. Failure to attempt resuscitation could invite her husband to sue for negligence. The law never settles the moral matter. One must rely on moral analysis and do what one determines to be morally right.

4. *The opinions of experts do not necessarily entail moral conclusions.* For example, the



simple fact that a clinical ethics consultant has recommended a course of action does not mean that this is the morally correct course of action. Expert advice can and should be obtained in morally troubling cases. The opinions of experts should be taken quite seriously. But experts often disagree, and experts can be wrong. "Expertise" among ethics consultants, as is true of any group of experts, is limited by their training, knowledge, practical wisdom, and potential biases. Appeal to expert opinion represents the informal logical fallacy of the *argumentum ad verecundiam*.

5. *The fact that something is biologically true does not entail automatic moral conclusions.* One can give multiple illustrative cases to demonstrate the absurdity of such reasoning. The fact that human beings do not have wings does not imply that it is immoral for human beings to fly. Likewise, the simple fact that the human fetus initiates brain wave activity at a certain stage of development does not, in itself, imply anything about the morality of abortion at one stage of development or another. An often misunderstood moral theory relevant to this issue is known as natural law. It is sometimes thought that natural law means that biology itself is normative. Illustrative of this type of misunderstanding is the manner in which some would hold that natural law theory concludes that certain sexual behaviors are immoral because they are "unnatural" in a biological sense. However, this is a misconstrual of natural law theory. Natural law theory is based on the supposition that there is such a thing as human nature, but that human nature is not merely understood biologically. Natural law holds that human nature includes biological, rational, affective, aesthetic, and spiritual dimensions, and that certain acts contribute to the flourishing of human beings as human, while some do not, in accord with this broad understanding of human nature.<sup>37</sup> Natural law does not argue that brute biological acts imply immediately clear moral truths.

### Empirical Studies and Normative Ethics

How, then, do empirical studies contribute to medical ethics? Empirical studies elucidate facts.

But the fact/value distinction precludes moral inference from brute facts. This might appear to make empirical studies irrelevant. Such a conclusion would be premature. There are at least seven ways in which empirical studies can be important in ethics.

#### *Purely Descriptive Studies*

Purely descriptive studies of what human beings believe about morality, how they change with time, and how they behave in situations of moral concern can be of enormous intellectual interest in and of themselves. Anthropological studies of how human societies differ with respect to the treatment of elderly people, for instance, can be fascinating. Differences in sexual morality can be interesting. Differences in the ways in which cultures pay for medical care, whether by government insurance, private for-profit managed care organizations, or the payment of chickens to the local shaman can be very stimulating to learn about. Such studies need have no normative purpose.

Yet descriptive ethics studies are interesting precisely because they illuminate human responses to normative questions. To study how different cultures grow rice would be of interest to an anthropologist, but not necessarily to an ethicist. When anthropologists or other social scientists apply their techniques to the study of normatively interesting questions, they are "doing" descriptive ethics. In many cases, the relationship between normative ethics and descriptive ethics is only that normative ethics has raised the questions of interest for empirical study.

It is of interest to know why certain persons have the opinions they do about certain disputed normative questions even if the answers one gathers through survey research are acknowledged to have no normative implications. If Southerners, for example, were to be less concerned about the ethics of using animals in trauma research, and this were to be found independent of race and religion, this would be an interesting empirical fact. It might lead one to ask further empirical questions or further normative questions. It deals with an interesting normative issue about research ethics, but has no normative implications in itself.

A good deal of empirical research in ethics is of this nature—carefully describing anthropological, sociological, psychological, and epidemiological facts that are of interest. They are of interest because the subject is normative. But the techniques are descriptive and the conclusions have no immediate normative implications.



### Testing Compliance With Established or New Norms

Another way in which descriptive studies can be related to normative ethics is through studies that describe compliance with existing moral norms. Again, such studies do not answer the normative question. But provided there is widespread acceptance of a moral norm, it is of interest to see how frequently the moral norm is actually adhered to by study subjects. In these studies, there is no question about the norm itself. What is of interest is the extent to which human beings live up to it, or the extent to which it is legally or socially enforced. For instance, almost everyone thinks that if patients do not wish to be connected to a ventilator, they should not receive ventilator therapy. Yet, a multicenter study of critically ill patients has shown that in many cases patients' preferences are overlooked and they frequently receive therapy they did not want.<sup>18</sup>

In other cases, new policies or procedures, designed to "operationalize" certain moral norms, are introduced into clinical settings. Descriptive studies can help to decide whether or not the plan for operationalizing the norm has been successful. Illustratively, studies have shown that the *Patient Self-Determination Act*, designed to facilitate communication between clinicians and patients about the patients' wishes for end-of-life care, has fallen far short of expectations.<sup>38</sup> This not mean that the norm is morally right or morally wrong. It only means that the implementation of the normative rule may need to be re-thought from a practical point of view. Such studies represent an important contribution of empirical research to bioethics.

### Descriptions of Facts Relevant to Normative Arguments

Good ethics depends upon good facts. Failure to thoroughly understand the facts of a situation will clearly make moral decision making a perilous activity. Further, many normative arguments depend upon factual information, even though these facts themselves do not confer normative status upon the arguments. For example, one might argue that liver transplantation should be withheld from alcoholics, because the chances of relapse of alcoholism are so high that the prognosis will be poor. In fact, it turns out that the survival of alcoholic patients with liver transplants is equivalent to that of patients transplanted for other conditions.<sup>39</sup> The moral argument against transplants for alcoholics, based on a presumption of poor prognosis, is thus falsified by the facts disclosed in a descriptive study.

The reliance upon facts in these sorts of arguments

does not violate the fact/value distinction. The premises in these arguments are both moral and factual, not simply factual. Such arguments are not only permissible, but are essential to moral reasoning.

Ethics is concerned with the world. Ethics is, in this sense, the most practical of all branches of philosophy. Moral premises relate facts to duties and virtues. Moral arguments often take forms such as,

1. Whenever situation X occurs, it is permissible to do Y.
2. If Z is true, then I am in situation X.
3. Therefore, if Z is true, it is permissible to do Y.

Proposition 1 is a moral premise. Proposition 2 is empirical. Empirical studies can make important contributions to ethics if they can show whether a proposition in the form of proposition 2 is always true, or under what conditions Z obtains. Knowing this empirical information is critical to determining whether one is bound by the obligation in proposition 3.

For example, proposition 1 might be the moral rule known in medical ethics as "therapeutic privilege."<sup>40</sup> This states that it is morally permissible to (Y) withhold information from patients if (X) disclosing that information would cause the patient very grave harm. The key to applying this moral rule will be to determine under what conditions situation X is true. Someone might argue (as generations of physicians up until the 1970s did) that whenever patients had cancer, informing them would cause the patients great harm.<sup>41</sup> Physicians were constructing a moral argument based upon a proposition of the form of proposition 2—If the patient has cancer (Z), this is a situation in which disclosing the facts will cause them great harm (X). This is precisely the sort of situation in which descriptive ethics can play an enormously important role in bioethics. In the 1960s, empirical studies were undertaken to show that patients with cancer overwhelmingly wanted to be told of their diagnosis and felt that they had the coping skills to handle it.<sup>42</sup> Further studies were then performed to demonstrate that patients, by and large, felt much better when they were informed of their diagnoses, and perhaps even evidenced better cooperation with treatment and better outcomes. Descriptive ethics studies showed that proposition 2 was false when Z was cancer. Therefore, the moral conclusion, proposition 3, could not be inferred. Physicians' practices changed. By the 1980s, 90% of American physicians reported that they routinely informed their patients with cancer of their diagnoses.<sup>43</sup>

### Slippery Slope Arguments

Another way in which empirical studies can uncover facts that are relevant to normative arguments is when so-called “slippery slope” arguments are invoked in moral debates. Slippery slope arguments are those that suggest that if a certain moral rule is changed, other, untoward moral consequences will follow. For instance, some have argued that if physician assisted suicide (PAS) were made legal for competent adults in the United States, several types of slippery slopes would ensue.

Down a *legal* slippery slope, a right to PAS for competent adults with full motor capacity would seem to be prejudicial towards those who are handicapped and incapable of taking lethal doses of prescription medicines themselves.<sup>44</sup> Following the principle of equal protection, this would lead to an extension from assisted suicide (for those capable of taking pills) to active euthanasia (for those incapable of taking pills themselves). Further, limiting PAS and euthanasia to *competent* patients might be seen as prejudicial towards those who are mentally incapacitated, and a violation of equal protection. Some might argue that the same right should extend to those mentally incapacitated individuals who might have specified a preference for euthanasia through an advance directive, as well as to others who might reasonably be construed to have such a preference, even if they had never been fully mentally capable or if they had never specified their preferences. This would lead from voluntary euthanasia to nonvoluntary (ie, not specifically requested) euthanasia.

Down a *psychological* slippery slope, it might be argued that there is a psychological tendency to be desensitized to the practice of killing, and that once physicians have crossed this barrier, they will naturally be freer to extend the circumstances under which they would be willing to provide such interventions.<sup>45</sup> In corroboration of this slippery slope concern, Dr. Herbert Hendin has quoted a Dutch physician as saying, “The first time you do it, euthanasia is difficult, like climbing a mountain.”<sup>46</sup>

These sorts of moral arguments have an empirical form. The facts to which they refer, however, are facts about a possible future that has not yet been realized. Therefore, empirical studies cannot answer the question directly about whether or not a slippery slope will occur, but they can contribute to an understanding of the likelihood that the slippery slope will occur in a given set of circumstances. Descriptive studies, which can contribute to our

understanding of the likelihood of slippery slopes, include: (a) historical studies of similar situations, (b) studies of other settings in which the change in moral norms has already taken place, (c) psychological studies of those likely to be affected by the slippery slope concerns, and (d) legal studies of statutes and case law precedents that might be relevant.

So, to continue using the example of PAS, slippery slope arguments have been bolstered or attacked by studies that indirectly bear upon predictions regarding PAS in the United States: (a) historical studies of pre-Nazi German programs for the mentally retarded and psychiatrically ill,<sup>47</sup> (b) contemporary health services studies of the practice of euthanasia in the Netherlands,<sup>48</sup> (c) psychological studies of the relationship between cost-containing attitudes of physicians and their willingness to prescribe assisted suicide,<sup>49</sup> and (d) legal studies comparing the evolution of laws and policies regarding the withholding and withdrawing of life-sustaining treatments to what might be expected for PAS.<sup>50</sup> All of these sorts of empirical studies contribute indirectly to the slippery slope argument. To repeat, a slippery slope argument cannot be directly supported by any empirical study. The slippery slope argument envisages a likely future so fraught with moral danger that one ought not engage in the social experiment of finding out whether the predicted slippery slope will come to pass. The argument is that the social experiment would be too risky to take. Such arguments can be bolstered or attacked, however, by indirect examinations of related facts that help to clarify how realistic such fears might be. Descriptive studies in ethics can thus play a key role in assessing the plausibility of slippery slope arguments.

Aside from slippery slope arguments per se, empirical studies can also suggest the consequences of certain courses of action in a manner that helps moral decision makers. One need not be a utilitarian to pay attention to consequences in making moral decisions. Empirical studies can help point out consequences that may be important in making moral decisions. For example, if the chances of a patient surviving an operation are only 1 in 5,000, the argument that it would be unjust to withhold the treatment seems much less persuasive than if the chances were 1 in 5.

### The Empirical Testing of Normative Theories

Sometimes the relationship between normative and descriptive ethics can be very tight and very

direct. This is particularly the case when normative theory prescribes practices that have components that can be empirically tested. An excellent example of this is the normative theory of substituted judgment. Based upon legal theory and moral philosophy's stress on the importance of respect for the autonomy of individuals who are making biomedical choices, the theory of substituted judgment was developed. According to this theory, when patients lose their decision making capacity, they ought not thereby forfeit all of their autonomy. What the patient thinks and feels might not be directly known, but one might still express respect for the patient's autonomy if one were to make the decision that one thought the patient would have made if he or she had been able to speak with full decision making capacity. Thus, one asks clinically, not "What would you like us to do for your mother?" but rather, "What do you think your mother would have wanted if she had been able to tell us herself?" Decisions made according to the spirit of the latter question are made according to the theory of substituted judgment.<sup>51</sup>

This is all well and good as a theoretical construct, but one notices quickly that there is an empirically testable question embedded in the theory—just how well can a loved one predict what the patient would have wanted? Is it a charade to think that human beings, even if closely related, can actually choose what the patient would have chosen? Does asking for a substituted judgment amount to paying mere lip service to the principle of autonomy, while if we were honest with ourselves we would admit that we are choosing according to the "best interests" standard, choosing what we think is in the best interests of the patient?

This sort of provocative question has led to a series of very interesting empirical studies on the validity of substituted judgments.<sup>29,52–54</sup> In these studies, patients are asked to imagine themselves in one or another serious clinical situation and to choose the life-sustaining measures they think they would want in that situation. Simultaneously, the patient's surrogate decision maker is asked what he or she thinks the patient would want. The results are then compared to see how well the patient does. Agreement rates have averaged about 70%—statistically better than chance alone, but far from perfect. This has led some ethicists to rethink the substituted judgment standard. Others have argued that the moral validity of the standard remains intact, but that what is needed are ways to improve surrogate decision making. Once again, the descriptive facts

learned from empirical studies do not answer the normative question. But by calling into question the practicality of a normative ethical rule, descriptive ethics can constructively challenge normative ethics. In Kantian terms, 'ought' implies 'can.'<sup>55</sup> One ought not establish moral duties that are impossible to carry out.

### *Case Reports*

As in other aspects of medical practice, case reports have a role to play in medical ethics. Careful descriptions of unusual situations can serve as a springboard for substantial normative discussion. Others who might encounter similar situations in the future can benefit from having read and considered the ethical issues in a case encountered by a colleague at another institution. Those who subscribe to the theory of casuistry (moral reasoning by analogies between cases) as their sole method of approaching cases in medical ethics depend heavily upon good case descriptions.<sup>56</sup> Those who appeal to narrative and care-based theories of ethics depend upon "thick" descriptions of the case, including details about interpersonal dynamics and emotions that are often excluded from more traditional case discussions. Because case reports are now generally frowned upon as anecdotal and unscientific in the standard medical literature, in some ways, the case report has experienced something of a revival with the advent of medical ethics. In ethics, there is no escaping the case.

### *Demonstration Projects*

Finally, descriptive ethics studies can be conducted in which normative ideas can be implemented in clinical settings not so much to be tested as simply to be demonstrated and discussed. The empirical project can thus function as a vehicle for the promulgation of a normative idea. This happens frequently in medical ethics. It is particularly common in ethics education. Few people will argue with teaching ethics to medical students or to nurses, for example. But it is important in some ways simply to demonstrate that such programs can be successfully implemented.<sup>57</sup> The content of the program might be shared so that others might benefit by comparing that content with their own program's content, or that others might be inspired to start a program of their own. Pitfalls in the implementation of the program can be discussed for the benefit of others. Such empirical descriptions might

also include simple survey data about the acceptability of the course and its perceived value and importance.

Similar descriptive reports can be generated regarding other programs, such as ethics consult services, ombudsperson programs for medical students experiencing ethical conflicts in relation to faculty or residents, or programs on research integrity. All of these can contribute substantially to advancing the field of medical ethics.

### **Normative and Descriptive Ethics: Two-Way Feedback**

Based on the discussion above, it should be clear that the relationship between normative and descriptive research in bioethics is one of two-way feedback. Normative ethics can generate claims that are associated with empirically testable hypotheses, or set normative standards that must be operationalized and can be studied in educational or practice settings. The empirical lessons gained from

such studies in turn feed back upon and influence normative theory. Normative arguments may also depend upon facts that can be garnered from empirical inquiry, thus sustaining or refuting the empirical basis for the normative arguments. Descriptive ethics studies can also generate new material for normative study. Anthropological and sociological studies can raise questions about the universal applicability of normative claims. Surveys can identify areas of disagreement that are ripe for ethical inquiry. Case studies can give rise to new questions that have never been addressed in normative inquiry, or can supply the entire basis for casuistic, narrative, and care-based studies.

The two types of ethical inquiry are thus mutually supportive. Good studies in normative ethics will be grounded in good empirical data. Good descriptive studies will be shaped by ethical theory, providing a framework in which the data will be interpreted. Ethical reflection is enhanced when these two types of investigation are undertaken in an interdisciplinary and cooperative fashion.

## **JUDGING GOOD DESCRIPTIVE ETHICS**

Like any other literature in medicine, some studies in descriptive bioethics are well done, while others are not. By what criteria might one attempt to sort out the wheat from the chaff in this field?

The most important point to bear in mind is this: there are no methods or standards specific to descriptive bioethics. As should be apparent from earlier sections of this chapter, descriptive bioethics is remarkably interdisciplinary. Each of a multitude of disciplines contributes a set of methods and criteria for scholarly excellence, applies these methods to the investigation of moral questions, and is to be judged according to the criteria for scholarly excellence proper to that discipline. The methods may be quantitative or qualitative. The methods may be unique to a particular discipline or shared by several. The methods may be high tech or low tech. The work that results is to be judged according to how well it meets the criteria for scholarly excellence established for studies in its field. Thus, one judges an anthropological study in medical ethics according to the standards of the discipline of anthropology, an economic study according to the standards of the discipline of economics, and a historical study according to the standards of the discipline of history.

Nonetheless, one factor complicates this situation tremendously. What draws all these scholars to-

gether is a common interest in the study of moral questions. Yet, no one scholar is capable of mastering all of these various disciplines, each with its own proper methods, technical vocabulary, and standards. Thus, it is critical that these scholars be able to communicate their research in a way that emphasizes the rigors that are proper to their own discipline, but in a manner that is accessible to a very diverse audience. This is an extremely difficult challenge. Such communication skills are difficult to cultivate. Certainly, scholars in bioethics should also make an effort to understand the rudiments of the methods of the numerous other disciplines that contribute to the work of descriptive ethics. But no one can be the master of all of these various trades. The onus really falls upon each scholar to communicate research results in jargon-free language without sacrificing the scholarly rigors of the field. This makes the multidisciplinary character of descriptive ethics research very challenging.

### **Survey Research**

Because survey research is probably the most common type of research technique in descriptive ethics, it is probably appropriate to discuss some general criteria of methodological rigor in survey research. Surveys can serve to point out areas of dis-



agreement, and to point out interesting associations between particular opinions and certain characteristics of the population under study. More sophisticated survey instruments can try to elicit more basic underlying attitudes, psychological tendencies, cultural norms, or stages of moral development.

While even simple opinion survey research can be important in identifying ethical controversies, it is not enough simply to ask a few questions and count up the answers. In assessing the quality of descriptive ethics research using surveys, one should be assured that the instrument used in a given study was well-designed to meet the purposes of the study.

Some of the things to look for in assessing the quality of survey research, even in ethics, include the following<sup>58</sup>: There should be some evidence that the questions validly reflect the information being sought, using such methods as testing for face validity before a panel of experts, criterion validity against some gold standard, construct validity, focus group analysis, or cognitive pretesting. Questions should avoid framing bias, or at least alternate the direction of any acknowledged framing biases in the questions. Ideally, the exact wording of the most important question in the study should be reported in the paper. For example, in a survey reporting on end of life ethics, one would want to know if respondents were asked, "Do you support the right of competent, terminally ill patients to physician-assisted death?" or whether they were asked, "Do you think it should be legal for physicians to assist competent, terminally ill patients to commit suicide?"

The main dependent variable in a survey is more strongly validated if it is a scale based on several questions than if it is a single item on a survey. This is especially important if the researchers are trying to examine deep underlying attitudes, cultural norms, psychological tendencies, or stages of moral reasoning. Reports should note whether these scales have been checked for internal consistency, using appropriate statistical tests such as Cronbach's  $\alpha$  (a test of whether the scale "hangs together" so that those who answer a question in one way tend to answer the other questions that form the scale in a similar, consistent fashion).

Certain factors that are often of interest in descriptive ethics research have been extensively studied by multiple other investigators who have developed valid and reliable instruments. Thus, there is generally no need for ethics researchers to create new instruments to measure anxiety, depression,

dementia, confusion, functional status, severity of illness, or quality of life. There are plenty of scales available to measure these sorts of factors. While they are important in descriptive ethics research, there is no reason to think that they are unique to descriptive ethics research. One should be wary of studies that include idiosyncratic measures of well-studied factors such as dementia, and even more wary of studies that report on such complex factors on the basis of single questions rather than scales.

Of course, there may be valid reasons for descriptive ethics researchers to invent their own scales for these factors in particular circumstances, but the justification for doing so should be stated clearly. For example, there could be *a priori* reasons to suspect that severity of illness scales developed for unselected patients might differ from severity of illness scales for patients suffering from chronic, terminal conditions, leading researchers to develop and validate their own instruments particular to a group of patients who generate considerable ethical interest.<sup>59</sup>

Surveys should be pilot tested. The research report should describe the nature of the pilot testing. The pilot study population need not exactly match the main study population, but they should be similar. For instance, a survey of patients should be piloted among patients, not physicians or medical social workers.

If the entire population of interest is not surveyed, samples should be random. If this is not possible, the survey should sample consecutive subjects or at least sample by some arbitrary method such as alphabetical order. Basic demographic characteristics of the respondents should be presented. Response rates should be adequate (generally about 70% for patients, nurses, house officers, or students, and about 50% for practicing physicians). Some reporting on the characteristics of nonrespondents should be given to help to support the contention that there has been little response bias.

Analysis of survey data should follow standard procedures for statistical testing (eg,  $\chi^2$  testing for categorical variables, and t-testing for normally distributed continuous variables). Correlations between outcome variables and sociodemographic, clinical, or other respondent characteristics should be reported in a manner that takes into account multiple associations, using, for instance, multivariable regression models.<sup>60</sup> There should be adequate numbers of events so that any regression model reported is neither underfitted (too few events to de-



tect important associations) nor overfitted (too many subjects with too few events). There should be precautions against multicollinearity, interactions, and testing should be performed for “outliers.” An additional problem in using huge data bases is to interpret the clinical or ethical importance of statistically significant results. To illustrate this, consider a study that has 10,000 subjects, designed to investigate factors associated with responses to a single question such as, “Do you want to be resuscitated?” One might find that persons with lung cancer were 1% more likely to want resuscitation than persons with other cancers, and the result might be statistically significant. In these cases, the researchers bear important responsibility for justifying the sample size and for sorting out the important variables.

Subgroup analyses should reflect genuine pre-conceived hypotheses or be explicitly acknowledged as an exercise in hypothesis generation. “Data dredging” for statistically significant results is an unfortunately common practice. Looking for anything that might have a  $P$ -value  $< .05$  adversely affects the quality of the empirical ethics data. Some associations are bound to appear only by chance even though these are not actual associations and are unlikely to be repeatable. The impact of such spurious associations is minimized if one consistently reports only those associations that were identified before the research as possible hypotheses. If one intentionally looks for any and all statistically significant associations, some are bound to appear by chance, and reporting these is irresponsible, raising concerns about the ethical conduct of the research. Likewise, if the study was not designed to compare subgroups, analysis by subgroups and reporting these results leads to similar problems.

Interpretation of the data should scrupulously avoid normative conclusions. It may be interesting, for instance, if one were to discover that 75% of physicians do not believe they are bound by the precepts of the Hippocratic Oath. It would be inappropriate, however, to suggest that this means that the Hippocratic Oath should no longer be considered normative for medical practice. That may or may not be the case, depending upon the strength of various normative arguments.

Carefully conducted survey research in descriptive ethics can be very helpful and can be very interesting. But there must be clear evidence in the research reports that the survey has been carefully constructed, administered, analyzed, and interpreted.

## **Qualitative Research**

Descriptive ethics research has given rise to a new interest in qualitative research in the medical literature. Many of the most interesting topics in descriptive ethics are not readily amenable to quantitative research using surveys that consist of a series of closed-ended questions with multiple choice answers. This is particularly true when it is known (either by survey or by strong anecdotal evidence) that a particular subgroup expresses very different opinions than the rest of the population regarding a particular moral question. This naturally leads ethicists to wonder why this is so. A survey with closed-ended questions must presume that the researchers have a sufficient level of understanding of the research population that they can create a range of responses that will capture the opinions of the respondents. To assume this could be presumptuous. The investigators might not have a clue about why the research subjects think as they do. In such a case, there would be little choice except to begin to ask open-ended questions and to attempt to interpret the responses in a somewhat systematic fashion.

Qualitative research does not simply consist of a group of well-intentioned clinicians making up a few open-ended questions and then presenting their interpretation of the responses. There are multiple qualitative and semiquantitative methods that have been developed over the years in various disciplines that can help investigators to structure, analyze, interpret, and present qualitative data. These methods include, but are not limited to, participant-observer techniques, ethnographic analysis, focus groups, and Delphi panels of experts.

### ***Participant Observation***

Participant observation is a fairly standard technique of sociologists.<sup>16</sup> In this technique, the investigator gains access to the scene under study, becomes an invited part of the system, establishes the trust of the research subjects, and eventually blends into the background. Yet, the investigator still maintains an objective observer status, taking notes, and bringing an outside perspective to the social scene under study. The length of time devoted to this type of study is typically extended, not simply reports based on attending morning rounds one day per week over a period of 4 to 6 weeks. Participant observation is very labor intensive. Studies that report having utilized this technique are preferred to

studies that simply report anecdotal experiences or episodic observations.

### ***Ethnographic Analysis***

Ethnographic analysis is another important qualitative research method, borrowed from cultural anthropology.<sup>61</sup> Its application is not limited to far-off countries, but can be used in American medical contexts. Qualitative studies in descriptive ethics that adhere to the rigor of this technique can contribute significantly to medical ethics in a fashion that is far more reliable than mere anecdotal reporting of experience. Good ethnographic studies will clearly define the research question, and will use face-to-face open-ended interviews as well as participant observation to gather data. These observations will then be systematically analyzed using specific techniques such as saturation, triangulation, and “thick description.” Write-ups of these studies will include both clear descriptions of the methodologies and frank acknowledgment of sources of bias in interpretation of the observations. Studies that include such methodological rigor can give excellent information about the actual behavior of healthcare professionals in settings of bioethical interest, or about bioethical decision making in certain familial or cultural contexts.

### ***Focus Groups***

Focus groups are a defined systematic method for gathering qualitative information in a setting in which individuals are able to generate ideas by discussing a defined topic in a group setting, able to respond to the remarks of others in the group.<sup>62</sup> Some focus group methods, such as the Nominal Group Technique, are designed to avoid dominance by any particular member and to generate a wide variety of ideas arranged in a hierarchy of importance.<sup>63</sup> Nominal Group Technique accomplishes this through a period of silent idea generation followed by round-robin solicitation of these ideas, and employs secret balloting. Ideas are ranked in order of importance, and ties are broken by successive rounds of discussion and balloting. Other kinds of focus groups can be run using techniques to achieve consensus. There are many opportunities to make use of such techniques in descriptive bioethics. They can be used, for instance, to generate ideas about what patients think ought to be understood by a healthy man before giving informed consent to undergo PSA (prostate-specific antigen) testing for prostate cancer.<sup>64</sup>

### ***Delphi Panels***

A Delphi panel is a formal method for achieving a consensus opinion among a group of experts regarding a particular topic.<sup>65</sup> This technique is particularly useful when it is not feasible to bring the members of the group together in a single face-to-face session. Experts are asked to respond to a question, to rank their answers, and to explain their answers in a written fashion. The responses are collated, kept anonymous, and circulated among the group through a series of iterations until consensus is reached. Controversial matters of policy and morals can often be explored using this technique. Delphi panels have been used, for example, in developing screening guidelines. Their deliberations are not to be accepted as morally “correct,” but can be useful.

### ***Communications Research***

Another area of interest to the field of descriptive ethics in which qualitative research can play a particularly important role is the study of the relationship between healthcare professionals and their patients. In particular, communication between healthcare professionals and their patients is an area of intense interest, because this is the most important milieu in which the action of bioethics takes place. Several new techniques have been developed. Roter, for instance, has developed a technique, known as conversational analysis,<sup>65</sup> for coding audiotapes of physician–patient interactions. Kaplan has studied the communication styles of physicians, particularly examining whether physicians invite participation by patients in decision making, or maintain a more traditional “paternalistic” communication style.<sup>66</sup> This is obviously of intense interest to bioethicists who have long championed the role that patients should play in decision making regarding their own care.

### ***Multimethod Research***

Qualitative research techniques can be utilized in concert with quantitative survey techniques and the two styles used either sequentially or simultaneously to hone in on a particular research question from the vantage point of multiple techniques.<sup>67</sup> One method of integrating the two styles of investigation is called “triangulation,” in which data from a variety of sources can be used to confirm or build credibility for an analytic assertion or conclu-

sion.<sup>68</sup> For example, survey results might suggest that African-Americans are distrustful of medical researchers, and these findings might simultaneously be reached by extensive face-to-face interviews with African-Americans who have declined to participate in research and have stated in large part that this is because they do not trust the medical establishment. Studies that report using this combination of techniques are difficult to do, because there is often a gap between quantitatively oriented and qualitatively oriented researchers. Bioethics appears to be bridging that gap by providing an opportunity for such multimethod research. Studies using multiple methods can be quite sophisticated. However, multimethod approaches cannot always be recommended. In certain instances the amount known about a particular question may be so minimal that quantitative survey techniques would have no place. One might really not understand enough to ask the right questions or to frame meaningful closed-ended responses. In other instances, the background to a question may be so well known that closed-ended questions are more appropriate and open-ended interviews or participant observation may be superfluous.

### **Experimental Methods**

Certain studies in descriptive ethics will actually be able to test hypotheses experimentally. This will be particularly true of studies in which a normative standard has been developed by ethical theorists and one wishes to test whether or not that standard is met in actual clinical practice. Even more significantly a program designed to promote a particular clinical behavior deemed worthy of moral approbation or designed to promote some normative standard can be tested by randomized clinical trials. The ability to introduce the experimental method into bioethics could, as Thomasma has put it, only enhance the field.<sup>69</sup> All of the rigorous standards appropriate to the conduct of excellent randomized clinical trials in any field of biomedicine should be applied to the assessment of the quality of randomized clinical trials in bioethics.<sup>70</sup> Of course, randomized trials in field studies can be difficult to conduct, because the intervention generally targets healthcare professionals rather than patients and it can be disruptive to the flow of patient care. There can also be ethical problems in conducting controlled trials in which the program to promote the

ethically preferable behavior is to be withheld from a control group. Nonetheless, where possible, a randomized controlled trial of a new intervention will be preferable to a simple before/after cohort study of an intervention.

### **Theoretical Framework**

Empirical research in sociology, anthropology, and psychology is often judged on the basis of whether or not it specifies a particular theoretical framework. This will be true of empirical research in ethics that is approached from any of these disciplines as well. But while this is a necessary ingredient for the highest quality research in descriptive ethics, it is not sufficient. Excellent descriptive ethics research in bioethics will not only specify the theoretical framework particular to the empirical discipline, it will also explicitly designate the ethical theory that undergirds the research. Thus, a study on end-of-life decision making that employs a willingness-to-pay utility analysis and also acknowledges specifically that the moral theory undergirding the study is preference-based utilitarianism is superior to a study in which the authors do not appear to understand whether or not they are operating within the framework of any particular theory of ethics.

As Brody has pointed out, even in the absence of a specifically acknowledged theoretical orientation, the investigators must be able to conceptualize the question from an ethical perspective in order to conduct solid projects in descriptive ethics.<sup>71</sup> Failure to conceptualize the research adequately from an ethical point of view will make the study less ethically illuminating.

### **Biases in Empirical Research on Ethics**

Despite the enormous contributions that empirical studies can make to bioethics, even the most carefully designed studies will be subject to certain biases that should be explicitly acknowledged.<sup>72</sup> There will be a bias toward studying more easily measurable phenomena, and so, for instance, outcomes will seem more prominent than processes. There will also be a bias towards studying medical actions rather than omissions. Omissions might be just as important morally, but inaction does not show up readily on the empirical radar scope. Finally, there will be problems with validation. The events of greatest interest will often be ephemeral or intensely private.

For this reason, empirical projects will often study responses to hypothetical scenarios or ask about attitudes. Unfortunately, studies of self-reported attitudes do not necessarily correlate with actual behaviors.

### **Detached Disinterest**

These concerns about the quality of descriptive studies in bioethics are important for all readers of the bioethics literature, not just ethicists. One should be a critical reader. Some studies will be published because they appear to support a particular point of view, regardless of their quality. Especially in ethics, a more detached and disinterested

spirit would ideally be expected, but this does not always obtain in reality. Whether reviewers, editors, or readers agree with the position that appears to be supported by the study should not matter. It pays to recall that no descriptive study ever answers a normative question. One should be more concerned about whether the results are of intrinsic interest, whether the study answers an empirical question relevant to a normative argument, or tests the implementation of a normative standard and does so with methodological rigor. These studies will be the best, and should make no claims to answer any normative questions. Regardless of one's normative position on the issue under study, one should support quality in the descriptive research.

## **RESOURCES IN ETHICS**

Researchers trained in disciplines such as medical economics, medical sociology, medical anthropology, medical education, and a host of other disciplines often become interested in the study of moral questions, but are unaware of some important resources in bioethics. These include specific resources in computer data bases, syllabi, books, journals, court reports, and newspapers.

### **National Reference Center for Bioethics Literature**

The world's largest collection devoted solely to bioethics (21,000 volumes and 300 journals in bioethics and related fields) is housed at the Kennedy Institute of Ethics, Georgetown University, Washington, DC. The library is supported by the National Library of Medicine. They produce a thesaurus of keywords in bioethics searches, an International Directory of Bioethics Organizations, a Bibliography of Bioethics, Scope Notes reviewing the literature on various topics, a list of new titles in bioethics, and maintain a syllabus exchange catalogue. The library staff can be reached at 1-800-MED-ETHX, and the Internet address (also known as the URL [universal resource locator]) is <http://www.georgetown.edu/research/kie>.

### **Bioethicsline**

The National Reference Center for Bioethics Literature maintains this online resource on behalf of the National Library of Medicine. It contains all bioethics references from the Medline data base, but in addition includes bioethics journals, bioethics literature

from journals of philosophy and theology, and relevant court and newspaper articles. Those who reach the Medline data base of MEDLARS (Medical Literature Analysis and Retrieval System) via Internet Grateful Med can access Bioethicsline through this system. The URL is <http://igm.nlm.nih.gov>. One can then choose "Bioethicsline" from the menu.

### **Bioethics Journals**

The following journals are devoted exclusively or predominantly to the discussion of bioethics:

- *Bioethics*
- *Cambridge Quarterly of Healthcare Ethics*
- *HEC Forum (Hospital Ethics Committee) Forum*
- *Hastings Center Report*
- *Journal of Clinical Ethics*
- *Journal of Christian Bioethics*
- *Journal of Law, Medicine, and Ethics*
- *Journal of Medical Ethics*
- *Journal of Medicine and Philosophy*
- *Kennedy Institute of Ethics Journal*
- *Theoretical Medicine and Bioethics*

### **The Internet**

Rapid advances in technology have led to a vast repository of information available to the interested individual. Exhibit 4-1 provides a listing of pertinent resources available on the Internet when this volume was published. It is anticipated that other websites will become available in the future as biomedical discoveries fuel increasing interest in bioethics.



## EXHIBIT 4-1

### INTERNET RESOURCES AVAILABLE FOR BIOETHICS RESEARCH

---

The following is a partial listing of other bioethics resources available via the Internet. Many of these sites have connections to other useful websites.

- American Society for Bioethics and Humanities ..... <http://www.asbh.org>
- Buffalo, University of ..... <http://wings.buffalo.edu/faculty/research/bioethics/>
- Center for Research Ethics, Göteborg, Sweden ..... <http://www.cre.gu.se>
- Chicago, University of (McLean Center) ..... <http://ccme-mac4.bsd.uchicago.edu/index.html>  
(currently unavailable)
- Eubios Ethics Institute ..... <http://www.biol.tsukuba.ac.jp/~macer/index.html>
- German Reference Center for Ethics in the Life Sciences ..... <http://www.drze.de/>
- Medical College of Wisconsin ..... <http://www.mcw.edu/bioethics/>
- National Bioethics Advisory Commission ..... <http://bioethics.gov/nbac.html>
- Pennsylvania, University of (bioethics.net) ..... <http://www.med.upenn.edu/bioethics/index.shtml>

## DESCRIPTIVE BIOETHICS AND MILITARY MEDICINE

Descriptive bioethics in military medicine is a wide open field, ripe for investigation. There have been very few published papers in descriptive ethics that have come from military sources or have investigated issues of particular interest to military biomedical ethics. There have been few empirical studies of ethical issues in the pages of the journal, *Military Medicine*, aside from a few surveys of ethics committees.<sup>73,74</sup> Yet, some of the ethical issues that have been addressed in a more theoretical fashion would, in fact, be amenable to empirical research. For instance, battlefield euthanasia is discussed, but it is not known how often this is thought about, requested, or performed. Issues about informed consent for research in military settings, the particularities that make it more difficult to avoid

coercion and manipulation, the problems of balancing risks and benefits of prescribing experimental antidotes for chemical warfare, have all been discussed. The normative aspects of these sorts of issues occasionally receive prominent discussion,<sup>75</sup> yet it would appear that there have been no empirical studies about informed consent in military settings.

The recent Presidential Commission on Radiation Experimentation conducted a great number of empirical surveys regarding military medical experiments and informed consent in the past.<sup>76</sup> The picture painted by these data is not rosy. But very little is known about the present state of affairs, and this would also seem a ripe area for empirical research in bioethics in a military setting.

## CONCLUSION

In this chapter I have presented a broad overview of a rather extensive field—empirical research in bioethics. I have distinguished these studies in descriptive ethics from studies in normative ethics and metaethics. I have described some of the myriad disciplines that make contributions to descriptive ethics, and some of the techniques that are used. I have outlined some norms governing the proper relationship between normative ethics and descrip-

tive ethics, particularly regarding the important rule that normative inferences cannot be validly drawn from descriptive studies in themselves. I have also outlined some of the indicators of scholarly quality in descriptive ethics studies, emphasizing that these indicators are largely the indicators of the discipline that is being employed in the investigation. Finally, I have listed a series of resources in bioethics for those who might be interested in undertaking de-



scriptive bioethics research.

Empirical research in bioethics is an exciting, dynamic, and growing field of investigation. Pursued along with normative ethics in a truly synergistic fashion, it offers extraordinary research potential that neither approach could fulfill alone.

Descriptive ethics research is among the few academic settings in which truly interdisciplinary study is flourishing. It would be wonderful if the flavor of this interdisciplinary field were enriched further by adding more military studies to the descriptive bioethics menu.

## REFERENCES

1. Aristotle. *Nichomachean Ethics*. Irwin T, trans. Indianapolis, Ind: Hackett; 1985.
2. Frankena WK. *Ethics*. 2nd ed. Englewood Cliffs, NJ: Prentice-Hall; 1973: 4–5.
3. Sugarman J, Sulmasy DP, eds. *Methods in Medical Ethics*. Washington, DC: Georgetown University Press; 2000.
4. Mead M. *Growing Up in New Guinea: A Comparative Study of Primitive Education*. London: Routledge; 1931.
5. Engelhardt HT Jr. *The Foundations of Bioethics*. New York: Oxford University Press; 1986: 228–236.
6. Carrese JA, Rhodes LA. Western bioethics on the Navajo reservation: Benefit or harm? *JAMA*. 1995;274(10):826–829.
7. Orona CJ, Koenig BA, Davis AJ. Cultural aspects of nondisclosure. *Camb Q Healthc Ethics*. 1994;3(3):338–346.
8. Katz P. *The Scalpel's Edge: The Culture of Surgeons*. Boston: Allyn & Bacon; 1999.
9. Levinson W, Roter DL, Mullooly JP, Dull VT, Frankel RM. Physician–patient communication: The relationship with malpractice claims among primary care physicians and surgeons. *JAMA*. 1997;277(7):553–559.
10. Christakis NA. The ethical design of an AIDS vaccine trial in Africa. *Hastings Cent Rep*. 1988;18(3):31–37.
11. Pence GE. *Classic Cases in Medical Ethics*. 2nd ed. New York: McGraw-Hill; 1995: 175–176.
12. Fox RC, Swazey JP. *The Courage to Fail: A Social View of Organ Transplants and Dialysis*. Chicago: University of Chicago Press; 1974.
13. Mizrahi T. *Getting Rid of Patients: Contradictions in the Socialization of Physicians*. New Brunswick, NJ: Rutgers University Press; 1986.
14. Muller JH. Shades of blue: The negotiation of limited codes by medical residents. *Soc Sci Med*. 1992;34(8):885–898.
15. Lidz CW, Meisel A. Informed consent and the structure of medical care. In: *President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research. Making Health Care Decisions. Vol. II. Empirical Studies of Informed Consent*. Washington, DC: US Government Printing Office; 1982: 317–410.
16. Jorgensen DL. *Participant Observation: A Methodology for Human Studies*. Newbury Park, Calif: Sage Publications; 1989.
17. Lo B, Schroeder SA. Frequency of ethical dilemmas in a medical inpatient service. *Arch Intern Med*. 1981;141(8):1062–1064.
18. The SUPPORT Principal Investigators. A controlled trial to improve care for seriously ill hospitalized patients: The Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatments (SUPPORT). *JAMA*. 1995;274(20):1591–1598.
19. Wenger NS, Pearson ML, Desmond KA, et al. Epidemiology of do-not-resuscitate orders: Disparity by age, diagnosis, gender, race, and functional impairment. *Arch Intern Med*. 1995;155(19):2056–2062.

20. van der Maas PJ, van der Wal G, Haverkate I, et al. Euthanasia, physician-assisted suicide, and other medical practices involving the end of life in the Netherlands, 1990–1995. *N Engl J Med*. 1996;335(22):1699–1705.
21. Ware JE Jr, Bayliss MS, Rogers WH, Kosinski M, Tarlov AR. Differences in 4-year health outcomes for elderly and poor, chronically ill patients treated in HMO and fee-for-service systems. Results from the Medical Outcomes Study. *JAMA*. 1996;276(13):1039–1047.
22. Sulmasy DP, Lehmann L, Levine DM, Faden RR. Patients' perceptions of the quality of informed consent for common medical procedures. *J Clin Ethics*. 1994;5(3):189–194.
23. Self DJ, Wolinsky FD, Baldwin DC Jr. The effect of teaching medical ethics on medical students' moral reasoning. *Acad Med*. 1989;64(12):755–759.
24. Self DJ, Skeel JD, Jecker NS. A comparison of the moral reasoning of physicians and clinical medical ethicists. *Acad Med*. 1993;68(11):852–855.
25. Gilligan C. *In a Different Voice: Psychological Theory and Women's Development*. Cambridge, Mass: Harvard University Press; 1982.
26. Sulmasy DP, Geller G, Levine DM, Faden R. Medical house officers' knowledge, attitudes, and confidence regarding medical ethics. *Arch Intern Med*. 1990;150(12):2509–2513.
27. Lerman C, Narod S, Schulman K, et al. BRCA1 testing in families with hereditary breast-ovarian cancer: A prospective study of patient decision making and outcomes. *JAMA*. 1996;275(24):1885–1892.
28. Nelson KE, Celentano DD, Eiumtrakol S, et al. Changes in sexual behavior and a decline in HIV infection among young men in Thailand. *N Engl J Med*. 1996;335(5):297–303.
29. Sulmasy DP, Terry PB, Weisman CS, et al. The accuracy of substituted judgments in patients with terminal diagnoses. *Ann Intern Med*. 1998;128:621–629.
30. Blendon RJ, Szalay US, Knox RA. Should physicians aid their patients in dying? The public perspective. *JAMA*. 1992;267(19):2658–2662.
31. Beauchamp TL. *Philosophical Ethics: An Introduction to Moral Philosophy*. New York: McGraw-Hill; 1982: 336–379.
32. Hume D. In: Selby-Bigge LA, ed. *A Treatise of Human Nature*. 2nd ed. Oxford: Clarendon Press of Oxford University Press; 1978: 468–470.
33. Searle JR. Deriving 'ought' from 'is.' In: *Speech Acts: An Essay in the Philosophy of Language*. London: Cambridge University Press; 1969: 175–198.
34. MacIntyre AC. *After Virtue: A Study in Moral Theory*. 2nd ed. Notre Dame, Ind: University of Notre Dame Press; 1984.
35. Freeman VG, Rathore SS, Weinfurt KP, Schulman KA, Sulmasy DP. Lying for patients: Physician deception of third-party payers. *Arch Intern Med*. 1999;159:2263–2270.
36. Aquinas T. *Summa Theologiae*. I-II, q. 94, a.4, c.
37. Finnis J. *Natural Law and Natural Rights*. Oxford: Clarendon Press, 1980.
38. Silverman HJ, Tuma P, Schaeffer MH, Singh B. Implementation of the patient self-determination act in a hospital setting: An initial evaluation. *Arch Intern Med*. 1995;155(5):502–510.
39. Berlakovich GA, Steininger R, Herbst F, Barlan M, Mittlböck M, Mulbacher F. Efficacy of liver transplantation for alcoholic cirrhosis with respect to recidivism and compliance. *Transplantation*. 1994;58(5):560–565.
40. Beauchamp TL, Childress JF. *Principles of Biomedical Ethics*. 4th ed. New York: Oxford University Press; 1994: 150–151.

41. Oken J. What to tell cancer patients. *JAMA*. 1961;175:1120–1128.
42. Alfid RJ. Informed consent: A study of patient reaction. *JAMA*. 1971;216(8):1325–1329.
43. Novack DH, Plumer R, Smith RL, Ochitill H, Morrow GR, Bennett JM. Changes in physicians' attitudes toward telling the cancer patient. *JAMA*. 1979;241(9):897–900.
44. Kamisar Y. Are laws against assisted suicide unconstitutional? *Hastings Cent Rep*. 1993;23(3):32–41.
45. Kass LR. Neither for love nor money: Why doctors must not kill. *Public Interest*. 1989;198(9):25–46.
46. Hendin H. *Seduced by Death: Doctors, Patients, and the Dutch Cure*. New York: WW Norton; 1997: 53.
47. Lifton RJ. *The Nazi Doctors: Medical Killing and the Psychology of Genocide*. New York: Basic Books; 1986.
48. Gomez CF. *Regulating Death: Euthanasia and the Case of the Netherlands*. New York: Free Press; 1991.
49. Sulmasy DP, Linas BP, Gold K, Schulman K. Physician resource use and willingness to participate in assisted suicide. *Arch Intern Med*. 1998;158(9):974–978.
50. Avila D. Is the constitution a suicide pact? *Duquesne Law Rev*. 1996;35(1):201–259.
51. Buchanan AE, Brock DW. *Deciding for Others: The Ethics of Surrogate Decision Making*. New York: Cambridge University Press; 1989.
52. Seckler AB, Meier DE, Mulvihill M, Paris BE. Substituted judgment: How accurate are proxy predictions? *Ann Intern Med*. 1991;115(2):92–98.
53. Uhlmann RF, Pearlman RA, Cain KC. Physicians' and spouses' predictions of elderly patients' resuscitation preferences. *J Gerontol*. 1988;43(5):M115–121.
54. Zweibel NR, Cassel CK. Treatment choices at the end of life: A comparison of decisions by older patients and their physician-selected proxies. *Gerontologist*. 1989;29(5):615–621.
55. Rescher N. Does ought imply can? In: *Ethical Idealism: An Inquiry Into the Nature and Function of Ideals*. Berkeley: University of California Press; 1987: 26–54.
56. Jonsen AR, Toulmin S. *The Abuse of Casuistry: A History of Moral Reasoning*. Berkeley: University of California Press; 1988.
57. Sulmasy DP, Terry PB, Faden RR, Levine DM. Long-term effects of ethics education on the quality of care for patients who have do-not-resuscitate orders. *J Gen Intern Med*. 1994;9(11):622–626.
58. Neuman WL. *Social Research Methods*. 3rd ed. Boston: Allyn & Bacon; 1997: 227–269.
59. Knaus WA, Harrell FE Jr, Lynn J, et al. The SUPPORT prognostic model: Objective estimates of survival for seriously ill hospitalized adults. Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatments. *Ann Intern Med*. 1995;122(3):191–203.
60. Concato J, Feinstein AR, Holford TR. The risk of determining risk with multivariable models. *Ann Intern Med*. 1993;118(3):201–210.
61. Ventres WB, Frankel RM. Ethnography: A stepwise approach for primary care researchers. *Fam Med*. 1996;28(1):52–56.
62. Morgan DL. *Focus Groups as Qualitative Research*. 2nd ed. Thousand Oaks, Calif: Sage Publications; 1997.

63. Delbecq AL, Van de Ven AH, Gustafson DH. *Group Techniques for Program Planning: A Guide to Nominal Group and Delphi Processes*. Middleton, Wisc: Green Briar Press; 1986.
64. Chan EC, Sulmasy DP. What should men know about prostate-specific antigen screening before giving informed consent? *Am J Med*. 1998;105(4):266–274.
65. Roter DL, Stewart M, Putnam SM, Lipkin M Jr, Stiles W, Inui TS. Communication patterns of primary care physicians. *JAMA*. 1997;277(4):350–356.
66. Kaplan SH, Greenfield S, Gandek B, Rogers WH, Ware JE Jr. Characteristics of physicians with participatory decision-making styles. *Ann Intern Med*. 1996;124(5):497–504.
67. Stange KC, Miller WL, Crabtree BF, O'Connor PJ, Zyzanski SJ. Multimethod research: Approaches for integrating qualitative and quantitative methods. *J Gen Intern Med*. 1994;9(5):278–282.
68. Breitmayer BJ, Ayres L, Knafl KA. Triangulation in qualitative research: Evaluation of completeness and confirmation purposes. *Image J Nurs Sch*. 1993;25(3):237–243.
69. Thomasma DC. Empirical methodology in medical ethics [editorial]. *J Am Geriatr Soc*. 1985;33(5):313–314.
70. Meinert CL. *Clinical Trials: Design, Conduct, and Analysis*. New York: Oxford University Press; 1986.
71. Brody BA. Assessing empirical research in bioethics. *Theor Med*. 1993;14(3):211–219.
72. Pearlman RA, Miles SH, Arnold RM. Contributions of empirical research to medical ethics. *Theor Med*. 1993;14(3):197–210.
73. Carter BS. Medical ethics committee—a survey of Army hospitals. *Mil Med*. 1988;153(18):426–429.
74. Carter BS. A survey of Army clinicians on hospital ethics committees. *Mil Med*. 1989;154(8):392–394.
75. Annas GJ. Changing the consent rules for Desert Storm. *N Engl J Med*. 1992;326(11):770–773.
76. Advisory Committee on Human Radiation Experiments. *Final Report of the Advisory Committee on Human Radiation Experiments*. New York: Oxford University Press; 1996.

# MILITARY MEDICAL ETHICS

## VOLUME I

### SECTION II: MILITARY ETHICS

#### *Section Editor:*

ANTHONY E. HARTLE, PhD  
*Professor of Philosophy, Department of English  
United States Military Academy, West Point, New York*



Frank Thomas

*Desert Storm, Iraq*

1991

Art: Courtesy of Army Art Collection, US Army Center of Military History, Washington, DC.





# Chapter 5

## THE PROFESSION OF ARMS AND THE OFFICER CORPS

ANTHONY E. HARTLE, PhD\*

---

### INTRODUCTION

Lieutenant Stone's Dilemma: Case Study  
Professional Ethics as a Moral Compass

### ROOTED IN HISTORY

Warriors and Soldiers  
The State  
From Roman Legionnaires to Modern Military Professionals

### THE MILITARY TODAY

Characteristics of the Profession  
The American Professional Military Ethic  
Pluralism and the Professional Military Ethic  
Moral Dilemmas of Leadership: Case Study  
Lieutenant Stone Revisited: Can His Dilemma Be Resolved?

### CONCLUSION

\*Colonel, Corps of Professors, United States Military Academy, United States Army; Professor of Philosophy, Department of English, United States Military Academy, West Point, New York 10996-1791; formerly, Infantry Company Commander, 199th Light Infantry Brigade (Vietnam, 1968–1969)



H. Charles McBarron

*Follow Me*

Leyte, 1944

When General MacArthur's Sixth Army landed on Leyte in October, 1944, the Japanese resisted furiously. Soldiers supported by Navy bombardments, trained and led by members of the Army profession, regained control of the Philippines after bitter fighting. The principles and values that laid the foundation for victory in World War II continue to shape the Army in the 21st century. Those principles and values are the subject of this chapter. Image available at: <http://www.army.mil/cmh-pg/art/a&i/AVOP-0599.htm>.

Art: Courtesy of Army Art Collection, US Army Center of Military History, Washington, DC.

## INTRODUCTION

For participants, brutality dominates memories of war. War coerces, inexorably eroding humanity the longer it grinds. Professionalism, with its emphasis on competence and discipline, provides one of the defenses against brutalization, though professional conduct has other, more obvious purposes. The case study that follows suggests the coercion of warfare and the difficulty of reading the moral compass in the light of battle. The subsequent discussion will consider how the features of the moral compass for military professionals have come into being and what guidance that compass provides today.

### **Lieutenant Stone's Dilemma: Case Study**

Lieutenant (LT) Stone's infantry platoon has received orders to withdraw from an isolated forward position and move to another location quite some distance away as his brigade makes a major adjustment in the forward line of defense. He is waiting for two foot reconnaissance patrols to return from earlier missions forward into enemy territory.

One of the three-man teams returns—escorting a prisoner. The patrol leader, Staff Sergeant (SSG) Trask, tensely explains that perhaps 20 minutes ago his team, in hiding, observed an enemy squad moving away from the front with the platoon's other reconnaissance patrol marching along, hands bound, obviously prisoners. Trask's men had seized the trailing enemy soldier after the others had gone around a rock outcropping and had then raced back to the platoon for reinforcements. Trask emotionally requests the chance to take a squad out to rescue the captive platoon members. The enemy has become notorious for the barbaric murder of POWs (prisoners of war). Trask reports that the enemy prisoner has already stated that the enemy squad was taking the American POWs to a collection point.

Trask says, "If I leave now, I can catch them if I know where that collection point is. We can't abandon those people, Lieutenant! The one we captured refuses to tell where the collection point is, but give him to me for 15 minutes and I'll find out! We owe it to these guys to do everything we can. Once we pull out, we'll never see them again!"

LT Stone decides that if he can determine the location of the enemy collection point, they do have time for

a quick foray to find the POWs before the platoon must move to the rear. Unless he can move directly to the collection point, however, he will not have time. He cannot undertake a dangerous and time-consuming search. Rapid attempts to reach his company headquarters fail; he is temporarily out of communication. Stone intensely feels the pressure to act. He fully recognizes the compelling obligation to rescue his soldiers in the short time available. His chain of command has long preached that "we take care of our own," repeatedly emphasizing that "we don't leave men behind, alive or dead—we bring them home." He debates whether he should turn the prisoner over to SSG Trask for interrogation, which he knows will involve physical abuse because the prisoner has already refused to talk.

What factors should he consider in deciding what to do? No matter what choice he makes, he will have to override some of his moral concerns.

### **Professional Ethics as a Moral Compass**

How military professionals should answer such questions is the concern in the discussion that follows. Under stress, the kind of stress portrayed in the prisoner scenario, individuals often do not react logically; they tend to make snap decisions based on their emotions, experiences, and training rather than on rational analysis. Because military decisions so often have serious consequences, the military institution emphasizes the training of individual leaders, the criteria for making difficult decisions, and the professional values that should provide the structure for decision making.

In the historical development of the profession of arms that follows, those aspects that have led to the current institutional expectations concerning the conduct and character of military professionals receive particular emphasis. The content and application of the professional military ethic that today guides the actions of leaders in the American military services then undergoes scrutiny. At its conclusion, the discussion will return to Lieutenant Stone and his dilemma.

## ROOTED IN HISTORY

In his discussion of war, Dyer claims that "[o]ur gravest error in the late twentieth century is to overestimate our distance and difference from the past."<sup>1(p4)</sup> He observes, as many have, that the individual soldier "has changed remarkably little over

the ten thousand years or so that armies have existed,"<sup>1(p4)</sup> but he goes on to emphasize a critical point: The consequences of war have changed dramatically.<sup>1</sup> War has always resulted in suffering and death; today militaries are much more efficient at

destruction than ever before. In addition, the institution within which the soldier bearing arms lives and fights has changed in ways that have importance for citizens and soldiers alike. Because so much of human experience in war is the same, however, despite how much has changed, to understand today's military establishment, one must know something of its history.

In part because the consequences of war have assumed such critical importance for the larger, more highly structured societies of the modern world, the last two centuries have seen the development of *professional* military forces. Professional armies are not a development peculiar to the modern world. In all probability, ancient Egypt in certain periods maintained well-trained, highly experienced armies of men who made careers of fighting wars, but in the period that military historians know well, from AD 900 to the present, professional armies came into being only during the last two centuries. At the same time that the role of the soldier in society has been formalized, the incredible carnage of war in this century has led to observations such as Gelven's: "The spectacle of countless youths bent on mutual destruction seems to qualify as something unintelligible. What could possibly justify the immeasurable suffering of a battlefield? Surely war, among all human activities, deserves the ultimate censure."<sup>2(p4)</sup> Although it may not be possible to answer Gelven's penetrating question adequately, militaries can look carefully at the profession of arms, past and present, in order to understand how reasonable persons can pursue a military career as a calling and how military professionals can look upon their contributions as an exceptional service to the country. In the process, the professional framework for decision making in situations like that faced by Lieutenant Stone will be explored.

To provide a deeper understanding of the profession of arms in the context of society today, it is helpful to briefly trace the development of the warriors of ancient societies into contemporary military professionals. Military institutions have evolved into complex organizations bound by custom and law in the pursuit of politically mandated objectives. Thus, a military culture has developed with distinctive features. In particular, to further understanding of the function of the military in American society, the following discussion examines the professional and moral guidelines that limit permissible action by those who exercise military force in the name of the state. That examination will provide some insight into the role and perspectives of those who choose a career of

defending the United States by force of arms. An adequate analysis must also consider the problem of conflicting values that results when members of a culturally diverse society join America's armed forces, which promulgate a demanding professional ethic.

## **Warriors and Soldiers**

To begin, one must step far back in time. Archaeological evidence makes clear that armed men played a central role in the life of societies long before written records appeared. Besides to hunt more effectively, men have taken up arms to defend themselves, their families, and their communities from a variety of external threats that often included other people. In primitive societies, however, combat between tribes and communities frequently displayed the characteristics of ritual rather than the familiar modern ones of high-intensity warfare and high political stakes. Primitive war can be characterized as "organized armed conflict"<sup>3(p48)</sup> between members of "relatively small, stateless societies."<sup>3(p48)</sup> Although such fighting could be particularly merciless and brutal, cultural controls regulated and limited combat. The historian Keegan relates Divale's report of contemporary tribal conflict among the Maring of New Guinea, which is also considered typical of primitive warfare in prehistoric times.<sup>4(p98)</sup> Fighting took place

in a pre-defined area of no man's land along the borders of the warring groups. Each army was composed of warriors, usually related by marriage, from several allied villages. Even though large numbers of warriors were involved, there was little or no organized military effort; instead, dozens of individual duels were engaged in. Each warrior shouted insults at his opponent and hurled spears or fired arrows. Agility in dodging arrows was highly praised and young warriors pranced about.... In spite of the huge array of warriors involved in these pitched battles, little killing took place. Because of the great distance between warriors and the relative inefficiency of primitive weapons, combined with a young warrior's agility to dodge arrows, direct hits rarely occurred.<sup>5(ppxxi-xxii)</sup>

A set of conditions after 10,000 BC triggered a momentous change that altered the nature of conflict described above. More structured governing organizations, population pressures, agricultural development that made land highly prized, and other factors in combination led to the widespread establishment of armies. Expanding societies turned



from ritualized combat between warriors to the pursuit of conquest by large, organized military forces. In disciplined, trained military formations, the warriors became soldiers, and over the centuries between 9000 and 3000 BC, civilization and politics introduced systematic warfare.<sup>4(pp124–126)</sup> Indeed, the change was so marked that some commentators go so far as to observe that “by the time we begin to have a clear picture of the civilized world as a whole, around three thousand years ago, armed force dominates everything.”<sup>1(p33)</sup> Keegan observes that “[t]he written history of the world is largely a history of warfare, because the states within which we live came into existence largely through conquest, civil strife or struggles for independence.”<sup>4(p386)</sup> While his observation may suggest an overemphasis on conflict at the expense of technology as a factor shaping human history, wars do provide the great benchmarks in the record of civilization.

### The State

Progression of social organization from the family to the village to the region to the “state” reflects response to human needs. Whether the need for organized armed forces provided the impetus for organizing the state, or whether the emergence of the state brought the genesis of armies, it is clear that the developments were intertwined. Only the state could create and support a large, standing military force. At the same time, the army was essential to the existence of the state. The Sumerian Empire in Mesopotamia provides a striking example of the state–army symbiosis. Following the consolidation by conquest of Mesopotamia into a large state called Sumer around 2350 BC, the Sumerian kings established a military organization with aspects startlingly similar to those of modern military forces: standing armies housed in permanent barracks, standardized weapons, logistical planning on a large scale, the architecture of fortification, and systematically developed methods of siegecraft. In short, they pursued the activity of warfare with as insightful a grasp of efficiency and functional requirements as the American military employs today. Sargon of Agade, one of the strongest Sumerian rulers in the area now known as Iraq, fought at least 34 wars during his reign according to historical records, an observation that certainly supports the claim that war and armed force came to dominate human affairs.<sup>4(p135)</sup> Military force made the developed state possible; the state made military efficiency on a large scale possible.

In the view of national leaders for more than four millennia, military forces have been *necessary*. Even the most casual perusal of history indicates that conflict between and within societies appears inevitable. Living in large groups has given human beings the opportunity to increase technology and knowledge in ways not otherwise possible, and most members of those groups have benefited, but alongside those developments war has emerged as a looming threat to both society and progress. In a world of limited resources and competing interests, states unable to defend themselves frequently suffer at the hands of states with greater power. Despite the pacifist’s argument that nonresistance would minimize human suffering no matter what the nature of the predator state might be, most nations are prepared to defend with force the property, persons, and primary interests of their citizens. Many argue that such activities constitute the *raison d’être* of the state. In addition to facing external threats, viable states must enforce cooperation among and maintain control of their citizens; in the modern world, doing so has frequently required the use of military assets.

One result of the evolution of the modern nation-state, combined with ever-advancing weapons technology, has been the inauguration of an extremely dangerous period in human history, a claim with few dissenters among those who experienced the culmination of that development in the Cold War and the chilling threat of nuclear annihilation. Today’s threats of international instability and nuclear proliferation provide little relief.

Returning to the ancient period, the preeminent state and most dominant army emerged in Rome. Historians consider Rome the “mother house of modern armies.”<sup>4(pp263–281)</sup> Beginning in the fifth century BC, the Roman Empire began to expand, subsequently using the fierce discipline and merciless efficiency of the legions in an ever-widening circle of conquest. In the view of Keegan, “[t]he Roman centurions, long-service unit-leaders drawn from the best of the enlisted ranks, formed the first body of professional fighting officers known to history.”<sup>4(p268)</sup>

At its height during the second century AD, the Roman Empire through the legions controlled provinces stretching from Gibraltar to Hadrian’s Wall on the Scottish border, encompassing most of modern Europe and the Middle East, and then extending across all of northern Africa to Morocco. Contemporary military forces whose members take pride in their traditions and successes pale in achievement when the record of the legions of Rome over nearly six centuries is considered. The pur-

poses to which Rome put her professional soldiers may well be questioned, but few question the dedication and the sacrifices of the legions. The centurionate, the professional core of the legions, provided the great strength of an army that dominated the known world for century after century. The higher ranking leadership came from the upper levels of Roman society and came steadily because service as a tribune was a prerequisite for political service leading to the ruling consulate and imperial power.<sup>4(p268)</sup>

Notable also is the role the military played in the evolution of Roman society. The following comment by a noted historian suggests its centrality:

Rome, unlike classical Greece, was a civilisation of law and of physical achievement, not of speculative ideas and artistic creativity. The imposition of its laws and the relentless extension of its extraordinary physical infrastructure demanded not so much intellectual effort as unstinted energy and moral discipline. It was of these qualities that the army was the ultimate source...<sup>4(p283)</sup>

Even though no one makes so strong a claim for the military services in America today, the military remains a repository of some of the primary values that have formed American society and its institutions. Further emphasizing the historical importance of the Roman tradition, one can observe that the professional soldier of the Empire lived in a context of values that would certainly seem familiar to members of today's military. That observation suggests the influence of the Roman tradition, to some extent, but even more it reveals the functional demands of the profession of arms. As one military historian notes of the legionnaire, "His values were those by which his fellows in the modern age continue to live: pride in a distinctive (and distinctively masculine) way of life, concern to enjoy the good opinion of comrades, satisfaction in the largely symbolic tokens of professional success, hope of promotion, expectation of a comfortable and honourable retirement."<sup>4(p270)</sup> And throughout, of course, the life of the legionnaire required iron discipline and demanded extraordinary loyalty.

Legendary names from the Roman era continue to echo through the annals of military history: Cornelius Scipio, Scipio Africanus, Julius Caesar, Caesar Augustus, Vespasian, Trajan, Hadrian, Antoninus Pius, Marcus Aurelius. The legions went far in establishing the historical context from which modern military organizations emerged in the Western world.

## **From Roman Legionnaires to Modern Military Professionals**

### ***Feudalism***

Five centuries after the Visigoths sacked Rome in AD 410, men still fought in the same manner, though not nearly as efficiently as had the legions. The swarming horse cavalry of the steppes and the Arab world were ferociously successful, but their contributions to military development were tactical rather than formative. After the disciplined Roman armies disappeared, well-organized and enduring military organizations serving the state did not reappear until the 16th century AD.

During the interim period, and especially after the advent of the Crusades in the 11th century, chivalry became a dominating feature of European military culture. Overlaying the brutality of the Crusades with the development of chivalry appears incongruous at first glance, but the influence of the Catholic Church and the founding of knightly orders led to refinements in the outlook and conduct of fighting men. Enemies in battle (other than heretics, unbelievers, and peasants who failed to adhere to their appropriate class roles) were to be accorded respect and treated in accordance with an elaborate code of honor.

Throughout the medieval centuries, the feudal system, in which the mounted man-at-arms was the central figure, dominated Europe. As General Hackett notes, the feudal knight "followed his calling primarily for the maintenance or improvement of the economic and social position of his family as a land-holding unit. Military service was one of only two ways that were in practice open to him (the other being holy orders) for the acquisition of further wealth and prestige."<sup>6(p25)</sup>

In the highly regulated feudal system, the feudal man-at-arms had an obligation to serve a specific person under a specific contract in which "[a] benefit was conferred (tenancy of land was by far the most common form of it) in return for which military service was required."<sup>6(p25)</sup> In addition to the knights, foot soldiers served, "also discharging a personal obligation to give military service. Such interruptions to normal life were unwelcome but of short duration. The forces thus produced were usually cumbrous, ill-armed, and of low military value"<sup>6(p28)</sup> in the opinion of Hackett. *Loyalty*, however, became firmly embedded in the concept of military character as a result of the patterns established during the period of feudal society. During

this period, loyalty was the indispensable virtue.

To the courtesies owed to fellow members of the knightly class, the religious knightly orders such as the Templars and the Hospitallers added the characteristics of discipline in personal affairs as well as in battle, unwavering loyalty to the order, and service to a higher cause. The latter two characteristics also became lasting features of the European military culture, though the example of the mercenary soldier obscured that picture for some time. Before the professional in the service of the state returned to the military scene in Europe, mercenaries played a necessary but troublesome role.

### *Mercenaries and Militia*

Conflict among the city states of Italy in the 14th century led to the employment of contracted mercenary soldiers who fought for pay and transferred their loyalty accordingly. For a century, landless soldiers of fortune formed companies in Germany, England, the Swiss cantons, and elsewhere, selling their services to political leaders, most prominently in Italy. Contracted to provide security, the mercenaries in fact created a continuous threat to the stability of governments. As Hackett notes:

Machiavelli ... saw that the Italian cities had made a serious error, an error which was in fact to prove fatal. He realized the intimate connection between military techniques and political methods, between military organizations and political institutions. He saw that the cities, whose competitive development was bound to lead to conflict, had completely failed to evolve military forms appropriate to their political structure....Machiavelli dreamed of an Italy united under Florence, and in looking for a suitable military form it was almost inevitable that he should turn to Rome....He saw war as total and all embracing. The whole resources of the state should be applied to it and the only criterion of warlike methods should be their effectiveness.<sup>6(pp52-56)</sup>

The Roman tradition had relied upon the idea of a citizen army, an arm of the state, and that concept gradually reentered Western institutions, coming to full flower under Gustavus Adolphus of Sweden in the 1600s in the midst of European powers who still relied upon mercenary forces. "Gustavus Adolphus ... successfully developed and applied [the Roman model] on the battlefield, and the system he evolved persisted in its essentials well into the twentieth century."<sup>6(p58)</sup> That system involved conscripted soldiers, generally linear formations, smaller units (though larger armies), and more jun-

ior leaders who had to exercise some initiative. Adolphus' commanders endlessly drilled infantry units in precise formations, prepared them for specific tactical maneuvers, and used cavalry elements for shock action.

Sweden's great success with its citizen army was a factor leading to the development of standing armies. The militia, a military force consisting of citizens who retained their status as citizens only by accepting their responsibility to train for war and perform military duties in time of danger, returned to dominate military affairs. Sovereigns raised and paid for the militias that subsequently evolved into standing military forces. As Hackett notes, "It had become common in the mid-seventeenth century to keep 160-200,000 men under arms even in peace—twelve times as many as at the end of the sixteenth century."<sup>6(p61)</sup>

In a related development, Charles VII of France, attempting to organize and control mercenary companies that pursued their own interests to a degree that threatened sovereignty, initiated the regimental system. He appointed major landholders in the realm as regimental colonels, paid them out of the royal treasury, and required them to raise and maintain a force of about a thousand soldiers. Regiments became a permanent feature of the newly emerging European states and developed highly individualized cultures of their own. Military historians are most familiar with the British regiments, some of whom trace their lineage back several centuries.

### *Professional Beginnings*

The turn to a militia organization and the regimental system completed the reorientation that led to national military establishments. In Europe of the 17th and 18th centuries, in the midst of the Enlightenment and the flourishing of science and human progress, each state believed that it could ensure its survival only by developing military forces sufficient to defend against other states pursuing their interests at the expense of their neighbors. Under the two Fredericks, Prussia successfully joined a system of harsh discipline and conscript service supplemented by mercenaries with an aristocratic and largely amateur officer corps.

The Prussian example led to European armies that marched and countermarched, participated in few decisive battles, and served particular but limited state interests. War was the sport of kings, with causes and ideologies playing no significant roles. The period brought better firearms, fewer bloody

battles, and less prestige for the military. Nonetheless, that period presaged a great sea change in the development of military organization. The features of the professional military, as that term is understood today, can be found in the European armies of the mid-1700s, even though the professional officer corps came into its own only after the Napoleonic wars. The officer ranks had begun to develop the characteristics described by Huntington in his penetrating study of military sociology: corporate unity, career structure, and specialized training.<sup>7(pp37-39)</sup> Army and navy officers were about to become not just masters of their trade, as many undoubtedly had been over the centuries, but members of a profession, a distinction that requires some explanation.

To begin, it must be noted that the French Revolution and Napoleon's subsequent rise to power changed the face of warfare. The notion of freedom took hold and infused the citizenry of France with a national zeal and enthusiasm that changed the character of war and the military institution. The *levée en masse*, the idea of an entire nation taking up arms, led initially to huge armies of hastily trained soldiers, the mobilization of national industry, and the need for professional leadership. The precision and the ceremony of European warfare came abruptly to an end, and, in the words of Hackett, "The age of limited war was over."<sup>6(p87)</sup> The European states came to recognize that a full-time, professional officer corps was essential to the successful conduct of modern warfare.

The Germans, facing Napoleon's mass armies, had to find new means and resources. Frederick the Great's small formations of well-drilled conscripts and mercenaries provided no answer to Napoleon's challenge. Instead, the Germans turned to universal conscription and (eventually) an officer corps selected on the basis of merit rather than social class. The Prussian military identified merit both in terms of performance and through the systematic training and preparation of members of the officer corps. In fairly short order, other nations followed suit, thus providing the basis for the following observation: "Before 1800 there was virtually no such thing as a professional officer corps anywhere. After 1900 no sovereign power of any significance ... was without one."<sup>6(p99)</sup>

Many developments revealed the need for professional skills, but the enormous increase in logistical requirements in the 19th century provides an obvious one. Large, technologically advanced armies called for professional military logisticians. Amateur soldiers could not meet the demands of

the campaigns that followed the Napoleonic era, as the following description illustrates:

Napoleon's artillery at Waterloo [1815] ... numbered 246 guns which fired about a hundred rounds each during the battle; in 1870 at Sedan, one of the most noted battles of the nineteenth century, the Prussian army fired 33,134 rounds; in the week before the opening of the battle of the Somme [in World War I], British artillery fired 1,000,000 rounds, a total weight of some 20,000 tons of metal and explosive.<sup>8(p309)</sup>

As a result of these and other requirements in other aspects of combat operations, the military evolved into a profession, if by profession one means

an occupation with a distinguishable corpus of specific technical knowledge and doctrine, a more or less exclusive group coherence, a complex of institutions peculiar to itself, an educational pattern adapted to its own specific needs, a career structure of its own and a distinct place in the society which has brought it forth.<sup>6(p9)</sup>

Intended to develop a well-rounded picture of the profession of arms today, the material that follows presents other concepts of military professionalism. Although the discussion adds characteristics such as self-regulation and commitment to society, the definition above certainly conveys some of the most essential aspects of the professional military establishment.

The Prussians led the way toward professionalization by lowering class barriers for officer appointments, establishing entry standards that candidates had to meet, and beginning an educational system for career officers that General von Scharnhorst completed in 1810 by establishing the famous *Kriegsakademie* in Berlin. He also required comprehensive examinations for officers seeking promotion.<sup>6(p103)</sup>

Although it is true that the French officer corps moved toward professional status more slowly than the Prussians in terms of competency requirements and the quality of their military educational system, they did establish a school for staff officers in 1818 and the *Ecole Militaire Supérieure* in 1878.<sup>6(p121)</sup> The British Army, however, while it opened the Royal Military College in 1802, clung to its class-based standards for officer commissioning much longer, abolishing the practice of members of the aristocracy purchasing their commissions only in 1871.<sup>6(p104)</sup> The result was an army officer corps noted throughout most of the 19th century for its bravery but marked by amateur performance. Britain's strength was her navy, which, even though social status remained a



prominent aspect of gaining opportunities, placed great emphasis on competence and long experience. Dominating the seas, the key to the British Empire, required highly capable leadership.

The United States began with an abiding distrust of standing armies and “men on horseback,” largely as a result of experience with the British and the background of European history, with its Caesars, Cromwells, and Napoleons. That attitude can be traced as late as World War II. Not too surprisingly, military professionalism developed slowly in America. In between foreign crises requiring the commitment of armed forces, the nation’s military invariably declined in strength and readiness, with a corresponding decrease in the prestige and attention accorded the officer corps. From the beginning, the United States applied a militia concept that continues in modified form today (the Reserves and National Guard) as a vital complement to the regular forces.

Despite the Revolutionary War, the American military largely adopted the traditions of the British officer corps: An officer is a gentleman, a man of courage and unquestioned integrity. Those who led American forces, after all, had grown up as British citizens. Janowitz claims that the American mili-

tary inherited four central elements from the British military tradition: (1) gentlemanly conduct, (2) personal fealty, (3) self-evaluating brotherhood, and (4) the pursuit of glory. If by glory one understands an esteem for patriotism, for leadership in combat, and for public service, and if one accepts that 200 years have removed the aristocratic tenor of honor from American officership, Janowitz’s observation appears accurate.<sup>9(pp217–218)</sup> For the century that followed the establishment of the United States, however, the characteristics of a profession emerged slowly. During much of the 19th century, America’s best-educated Army officers, graduates of the United States Military Academy at West Point, which was established in 1802, were better known as engineers than as battlefield leaders. Although the Civil War (1861–1865) changed that, after the war the US Army became little more than a constabulary in the West, fighting and policing the Native American tribes.

Not until the turn of the century did the military profession as it exists today in the United States begin to take shape. During that period the US Army and US Navy established permanent schools for advanced military education and began to develop systematic processes of educating and training career professionals.

## THE MILITARY TODAY

### Characteristics of the Profession

As Janowitz notes, “In broadest terms, the professional soldier can be defined as a person who has made the military establishment the locus of his [or her] career.”<sup>9(p54)</sup> The military professional’s expert knowledge and skills center on the systematic application of violence, the specialized service the professional provides the parent society. That unique expertise sets him apart from other professional groups. The knowledge and skills necessary to support a large, modern military force, however, extend far beyond combat-related activity. In the military today, there are physicians, veterinarians, labor relations specialists, television announcers, and innumerable other specialists associated with distinctly civilian pursuits.

Who qualifies as a *military* professional in the highly complex, heterogeneous American military services? Soldiers, sailors, and airmen who serve for 3 to 5 years and return to the civilian world (the majority of the members of the military services) serve in a professional organization but do not qualify as military professionals under the parameters established in the preceding discussion. They

do not possess the mastery of disciplinary knowledge and the degree of participation in self-direction and self-regulation that distinguish professional activity. Senior noncommissioned officers, however, demonstrate strong attributes of professionalism, and the commissioned officer corps generally appears to fit precisely into the professional category. But many military officers, nonetheless, are exceptions, as a pediatrician in a military hospital so appears. At the ends of the spectrum, one can identify the purely military professional and the supporting cast that provides services not at all peculiar to the military. In practice, however, it is not easy to draw the line between military professionals and others in the military. Thus professionalism and membership in the military profession are probably best described as matters of degree. The reference to degree appears in other contexts, as the following quotation reveals:

There is no absolute difference between professional and other kinds of occupational behavior, but only relative differences with respect to certain attributes common to all occupational behavior... [On this view] the medical profession is more professional than the nursing profession, and the medi-



cal doctor who does university research is more professional than the medical doctor who provides minor medical services in a steel plant. Professionalism is a matter of degree.<sup>10(p18)</sup>

Complicating the issue of membership in the profession, in addition to the idea of a spectrum of degree noted above, is the fact that “the military profession consists of a mixture of heroic leaders, military managers, and technical specialists, and *one officer can come to embody various mixtures of these elements*”<sup>9(pxiii)</sup> (emphasis added). Such complications notwithstanding, most American officers and career noncommissioned officers today clearly qualify as military professionals, and many other service members qualify to some degree.

To understand the role of the American military professional today, it is necessary to explore the relationship between the military and the society it serves. It is also necessary to recognize the influences that have shaped the military culture that has evolved. Within that culture corporateness dominates, partly as a result of the specialized training and education that all members of the military receive.

### *Relationship to the Parent Society*

One indelible characteristic of the American military that emerged from its first century of development remains foundational: The military is entirely subordinate to and responsive to the civilian leadership of the nation. (See Chapter 7, *The Military and its Relationship to the Society It Serves*, for a further discussion of this relationship.) That feature receives little attention when American military forces are considered because it is so deeply ingrained in American consciousness. In Latin America, however, and in many countries in the Middle East, Asia, and elsewhere, such subordination is decidedly not the case, and to note that military cultures differ markedly from one society to another raises no questions because the statement is so obviously true. In a number of countries that can be mentioned, the military *is* the government. Until recently, the military dominated life in Haiti, Brazil, and Argentina, as it still does in Myanmar and a number of African countries. If one is to understand the military profession, it is necessary to understand why military establishments differ in these obvious ways—and why they nonetheless share so many features. When the major formative influences on military organizations are recognized, both the differences and the similarities can be more readily explained.

The nature and structure of any military organi-

zation result in part, and in large part, from the basic exigencies of warfare. Both leaders and subordinates must possess competence in the use of weapons, the application of effective tactics, and the provision of support necessary to sustain combat if the military organization is to be effective. Such skills represent one of the essential characteristics of any profession: a set of abilities acquired as a result of prolonged training and education that enable the professional to render a specialized service.<sup>9(p5)</sup> The weapons, the tactics, and the organizational structures of military establishments may differ radically as a result of different circumstances, but certain requirements will always exist. Those requirements will shape the nature of any professional military group. In particular, those requirements will shape the ethos that provides direction, purpose, and guidelines for the conduct of military affairs.

### *Shaping Influences*

There are three shaping influences—the functional requirements imposed by the nature of military operations, the proscriptions of the international laws of war and the principles that underlie those laws, and the dominant values of the society in whose interests the military serves. Each of the major shaping influences merits careful consideration.

**Functional Requirements.** Three primary factors shape the professional military ethic (PME) of every country’s armed forces today.<sup>11(pp24–35)</sup> They include the functional requirements of effective combat operations noted above. Though functional necessities vary greatly in detail over time and in differing circumstances, the general nature of such requirements remains constant. In broad terms, any consistently successful military organization must have members who possess physical courage; soldiers who flee the battlefield will not win. Soldiers and sailors must be courageous and physically strong if they are to prevail. Military organizations must also be sufficiently disciplined, with a recognized hierarchy of authority, to ensure that orders are carried out consistently and reliably. Individual soldiers must possess the skills necessary to employ weapons and equipment in the accomplishment of tactical missions, and commanders must possess both traits of character and tactical skills required to pursue military objectives successfully without excessive losses. These broadly described functional requirements involved in the systematic application of force will be essentially constant from one society to another. Huntington observed of the military profession—with emphasis on profession—that it

exists to serve the state. To render the highest possible service the entire profession and the military force which it leads must be constituted as an effective instrument of state policy. Since political direction only comes from the top, this means that the profession has to be organized into a hierarchy of obedience. For the profession to perform its function, each level within it must be able to command the instantaneous and loyal obedience of subordinate levels. Without those relationships, military professionalism is impossible. Consequently, loyalty and obedience are the highest military virtues.<sup>7(p73)</sup>

Without disciplined organization, military units cannot maintain obedience. Huntington and others have shown that the requirements of the military profession demand loyalty, obedience, and discipline no matter what particular nation or society may be involved. As has been noted, the values of technical competence and physical courage also arise directly from the nature of military activity. In some form, over time, such functional requirements will become institutionalized as standards of conduct for members of the armed forces. Functional requirements thus emerge as one of the major factors shaping the PME of any military organization.

**The Laws of War.** A second factor that shapes a PME, the international laws of war, has become progressively more prominent in this century. Chapter 8, Just War Doctrine and the International Law of War, will address this subject in detail. With essentially all countries now being signatories to the most important international treaties and conventions governing the conduct of war, all military organizations are affected by the existing laws. The degree to which a specific military ethic has incorporated the principles manifested in the laws of war may vary considerably, but those existing laws exert a persistent influence that cannot be ignored. Moral principles ground the international laws of warfare as they now exist. To the extent that a PME recognizes and incorporates the provisions of the laws of war, it incorporates the following two underlying humanitarian principles: (1) Individual persons deserve respect as such, and (2) Human suffering ought to be minimized.<sup>11(pp55-84)</sup>

**Values of Society.** The third and most complex factor that influences the content of a PME, one that further circumscribes and limits the other two, emerges from the dominant values of the society that create and sustain the military institution. None of the institutions or practices of society are born in isolation or unchanging over time. The purposes, concerns, and interests of the people involved in

an institution give it life and mold its nature. Overall, its members are products of their society. The structures of all social institutions reflect basic cultural values, patterns of value that change very gradually. Military institutions accordingly reflect the influence of those same patterns. Because societies differ in these features, the military cultures that develop within them will differ as well, despite the common professional exigencies. One can thus understand why subordination to civilian authority, such a dominant feature of the American military, does not characterize the military forces of some other nations.

### *Specialized Education and Training*

Despite some skeptical views of the military's professional status, which include concerns about "a trade devoted to slaughter" and the view that a career soldier is a "paid jack-of-all-trades,"<sup>12(p16)</sup> the profession of arms exemplifies the general pattern of specialized education and training that leads to a profession-peculiar body of knowledge and expertise. Following a diversified basic education, career members of the American military undergo a systematic program of education that extends over a period of 20 years. The officer corps of the services, which provides the senior military leadership, presents the most obvious example of this aspect of the American military profession.

Junior officers in the US Army, following a pattern found in all services, attend a basic course for their branch (such as infantry, field artillery, or signal corps) where they learn fundamental skills, leadership techniques, and small unit tactics. Following several years of service, each officer attends a roughly 6-month course in preparation for command and more senior responsibilities.

Following further professional experience, at about the 10- to 12-year point, selected field grade officers spend a year at the Army Command and General Staff College or its equivalent in one of the other services. When they complete that level of education, they have mastered to varying degrees a highly specialized knowledge of military tactics, support and sustainment operations, planning procedures, and operational requirements involving the equipping and training of armed forces that will enable them to function efficiently.

The last formal step in the education system of all the services is attendance at a senior service college. After 16 to 20 years, officers selected on the basis of merit in a highly competitive process spend a year at the Army, Naval, Air Force, or National

War College (or, for some, the Industrial College of the Armed Forces), where they concentrate on strategy and international relations. From the ranks of war college attendees come the generals and admirals, the senior leadership of the American military.

In addition, under military programs, most officers receive a graduate degree from a civilian school in a discipline related to the officer's individual career pattern. The end product of the military's educational system is a highly trained, well-educated officer who has developed a special expertise and body of knowledge peculiar to his or her career in precisely the sense that the status of being a professional requires. The objectives<sup>13(p31)</sup> of the educational process just described are identified as follows in one analysis of command responsibilities:

1. Knowledge. Information, data, facts, theories, concepts [includes military tactics, weapons capabilities, and logistical requirements].
2. Skills. Abilities that can be developed and manifested in performance, not merely in potential....Includes technical, communications, information-retrieval, and some analytical skills.
3. Insights. Ideas and thoughts derived internally from an ability to see and understand clearly the nature of things. Necessary part of making judgments, of deciding, of "putting it all together," of "being aware" of wisdom, far-sightedness....Cannot be taught directly, but can be induced by qualified teachers. Generally a product of education [and long experience] rather than training.
4. Values. Convictions, fundamental beliefs, standards governing the behavior of people. Includes attitudes towards professional standards such as duty, integrity, loyalty, patriotism, public service, and phrases such as "take care of your people" and "accomplish your missions."...Values, like insights, must be derived by the individual, if they are to have meaning.

Thus a senior professional military officer is one in whom the nation has made a major investment. This officer has an expert knowledge of a complex intellectual discipline that results only from extensive training and education, wide experience, and long application. The commander of an aircraft carrier group or a similar naval command must understand the relationships between tactical alternatives and organizational capabilities, the technological abilities and limitations established by highly complex equipment, and the variety of interpersonal skills necessary to motivate and command others. The mastery of complex staff procedures and the competent command of large military formations

require capabilities normally achieved only after progression through years of professional preparation and experience.

Senior members of the military, if they are adequately prepared for command, will be proficient in many areas. Nye believes that Miles captures this requirement when he says that a capable military strategist must be prepared to do each of the five following tasks<sup>13(p136)</sup>:

1. Understand and support political goals, to insure effective coordination of policy and strategy.
2. Select military objectives that will lead logically to the achievement of political aims.
3. Allocate military resources and establish correct priorities.
4. Conduct war in a way that sustains support on the home front.
5. Maintain a proportional balance between the applications of violence and the value of the political goals.

The American people continue to have a strong interest in the nature of the professional officer corps. Occasional failures in conduct and character of military leaders causes great concern, if not alarm, and public demands for corrective measures invariably follow. Two considerations obviously at work are the military's role as the ultimate defenders of freedom and rights and the military's responsibility for the lives and welfare of the sons and daughters of America who serve in military organizations. Those considerations alone establish competence in military duties as a moral imperative.<sup>14</sup> Incompetence can result in disaster for serving members of the military and danger to national security. In view of such possibilities, the military's continuous concern about individual skills and performance and professional competence in general follows logically. The military services' extensive systems of schooling and focus on professional development reflect such concern.

### *Corporateness*

The functional imperatives give rise to complex vocational institutions which mold the officer corps into an autonomous social unit. Entrance into this unit is restricted to those with the requisite education and training and is usually permitted only at the lowest level of professional competence. The corporate structure of the officer corps includes not just the official bureaucracy but also societies, associations, schools, journals, customs, and traditions.<sup>7(p16)</sup>



Corporateness involves characteristics that make a group providing a specialized service to society a distinctive and relatively autonomous entity. By “autonomous” it is meant that the group establishes its own criteria for entrance for candidates for membership, evaluates and judges the conduct and competence of those members, and imposes its own sanctions for failures to meet the professional standards set by the group. Members of the group are the only ones competent ultimately to judge the professional abilities of individual officers. Officers can be judged in terms of the results they achieve, just as medical doctors can be judged by the success of their treatment of patients, but only other doctors can judge the technical skill of a member of the medical profession. The officer corps is also a self-regulating body that determines the standards of competence and conduct for its members. Such internal standards constitute an important aspect of corporateness.

Another facet of corporateness emerges from the individual’s sense of identity with the institution and its values, which will be discussed in more detail shortly, and from the feeling of obligation to further the institution’s purposes. Individual members thus share responsibility for maintaining the standards of the corporate group with respect to the performance of other members, and a variety of institutional procedures and mechanisms, as Huntington notes above, help safeguard and perpetuate the standards.

In addition to structural indications of corporateness, the military exhibits a strong sense of group identity through the value of loyalty in the professional code. One sociologist describes military loyalty in these terms:

Loyalty is the quintessential military virtue: loyalty to the country, the Constitution, and the president as commander-in-chief ... to the [military] itself and its standards and traditions; to the unit in which a soldier serves, and to peers, superiors, and subordinates. In theory the most important of these loyalties is to the United States Constitution; in practice the most important—to a soldier’s morale and to his or her willingness to obey orders and assume responsibility—is to comrades.<sup>15(p54)</sup>

Loyalty strengthens the sense of identity with the professional calling and the willingness to subordinate one’s own interests to the interests of the institution and the client the institution serves. Both developments enhance the corporate nature of the activity.

## The American Professional Military Ethic

The preceding discussion of loyalty leads directly to the American PME, the core of professionalism for members of the Army, the Air Force, the Navy, the Marine Corps, and the Coast Guard. In discussing the PME, it is first necessary to recognize that there is no formally published code of ethics as such for the American military or the individual services (what is formally common to all is *The Uniform Code of Military Justice* that establishes military law, which admittedly governs behavior but in an exclusively proscriptive legal fashion). The military services nonetheless do have a set of standards of conduct passed on through the education systems previously described and the process of professional socialization. In the view of one outside observer, it appears that “loyalty to this code and to the people with whom it is shared is the essential military quality.”<sup>15(p43)</sup>

In considering loyalty to one’s superiors, many turn to the classic statement in Shakespeare’s *Henry V*. On the eve of the historic battle of Agincourt, where the English under King Henry won an improbable victory, the disguised monarch walks among his soldiers to assess their temper. Henry prompts a supportive response by declaring, “Me-thinks I could not die anywhere so contented as in the king’s company, his cause being just and his quarrel honorable.” When one soldier rejects that view by replying, “That’s more than we know,” another describes the view long held to both justify and excuse the actions of soldiers necessary in war: “Ay, or more than we should seek after, for we know enough if we know we are the king’s subjects. If his cause be wrong, our obedience to the king wipes the crime of it out of us.”<sup>16(III23–126)</sup> Because the information available to common soldiers has always been so limited, the principle of superior orders holds that so long as one is obeying the orders of one’s superiors in the military chain of command, one cannot be held accountable for those actions.

Recent history in the form of the Nuremberg Trials after World War II has developed this tenet further, as Chapter 8, Just War Doctrine and the International Law of War, will consider in some detail. Published guidance today frequently repeats in emphatic terms the requirement for members of the military to refuse to obey illegal orders. The US Army’s *The Law of Land Warfare* presents an uncompromising position on this point: “The fact that the law of war has been violated pursuant to an order of a superior authority, whether military or civil, does not deprive the act in question of its character

as a war crime, nor does it constitute a defense in the trial of an accused....”<sup>17(¶182)</sup>

As I noted previously, the guidance—ethical guidance as well as legal—for conduct of members of the military has clearly been influenced by the international laws of war. This point should be kept in focus despite infamous events such as the March 16, 1968, My Lai massacre in Vietnam and the legal aftermath that so vividly raised the issue of hypocrisy. Second Lieutenant Calley was in command of an infantry platoon and, acting upon ambiguous orders, ordered his men to kill every “man, woman, and child” in the village of My Lai. Initially sentenced to life imprisonment in 1970 by a military court martial for the murder of 33 Vietnamese civilians, Calley was released on parole in 1974. Despite his early release, it should be remembered that his defense of following orders did not save him from conviction. Furthermore, those found not guilty of charges stemming from the massacre were not acquitted on the basis of the “superior orders” defense. (See Chapter 6, Honor, Combat Ethics, and Military Culture, and Chapter 9, The Soldier and Autonomy, for additional discussion of My Lai.)

The central place of loyalty in military values suggested by the passage in Shakespeare nonetheless holds today. Each military service has published what its leadership considers the most important professional values:

- US Army Professional Values<sup>18–20</sup>
  - Loyalty
  - Duty
  - Respect
  - Selfless service
  - Honor
  - Integrity
  - Personal courage
- US Navy Core Values<sup>21</sup>
  - Honor
  - Commitment
  - Courage
- US Air Force Values<sup>22</sup>
  - Integrity
  - Service
  - Excellence

The Army values (LDRSHIP) have been depicted in poster form (Figure 5-1) and are prominently displayed on Army installations worldwide. Loyalty, which appears at the top of the US Army list, plays a large part in the US Navy’s statement of commitment and the US Air Force’s statement of service and patriotism. Honor (Figure 5-2) and integrity



**Fig. 5-1.** The “LDRSHIP” acronym devised by Army leaders helps soldiers remember the Army values, especially in combat where they are most likely to be tested. These are not listed in order of importance but rather as a way to remember the component parts of leadership.

play prominent roles in all the service standards. For the Army, an honorable soldier is one who lives up to all the other Army values.

The elements of the code that guides the conduct of all members of the American military can be clarified by reconsidering the formative influences that were discussed earlier. The first and most ubiquitous of these is that set of functional requirements arising directly from the nature of the activity. Courage, competence, and discipline (obedience) were the foremost requirements identified in this category. Physical courage has of course been and will remain the quintessential warrior virtue, but today it is clearly recognized that men and women in uniform must also possess moral courage if they are to meet the challenges of their profession. Today’s military, deployed on peacekeeping operations and short-notice missions with more powerful weapons than ever before in the hands of more junior people than ever before, faces stern demands on judgment and character. Physical courage must be matched by moral courage (Figure 5-3). After these functional



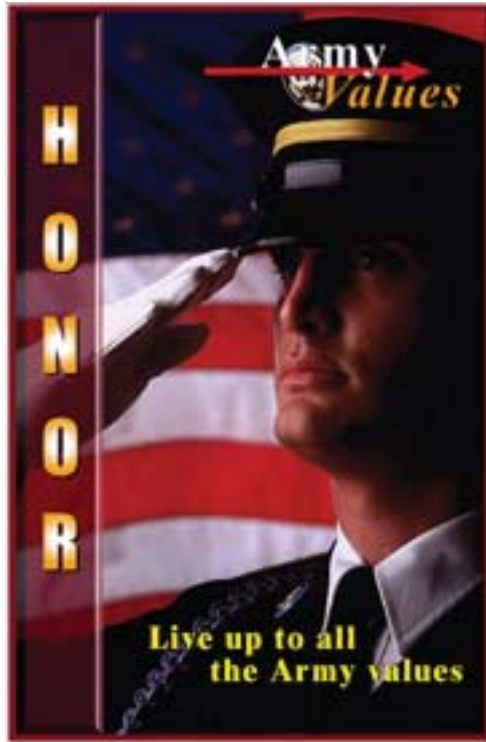


Fig. 5-2. The concept of “honor” as it is depicted in the Army poster series on leadership. Although “honor” is actually the summation of the other Army values, as indicated in the subtext of this poster, its inclusion in the list helps emphasize its importance.

requirements, one must consider the legal requirements. Because military personnel are sworn to uphold and defend the US Constitution, they are constrained by Article 6, Clause 2 of that document, which states that international treaties signed by the United States become the law of the land. As *The Commander's Handbook on the Law of Naval Operations* states, “Pursuant to the Constitution of the United States, treaties to which the United States is a party constitute a part of the supreme law of the land with a force equal to that of laws enacted by Congress.”<sup>23</sup> Among the treaties are the Hague Conventions, the Geneva Conventions, and the rest of the international laws of war.

When an American serviceman or servicewoman swears to uphold and defend the US Constitution, he or she swears to uphold the international laws of war. This second set of constraints on permissible conduct further delineates the ramifications of commitment to the PME. The commitment to uphold the laws of war logically entails commitment to the two previously cited humanitarian prin-

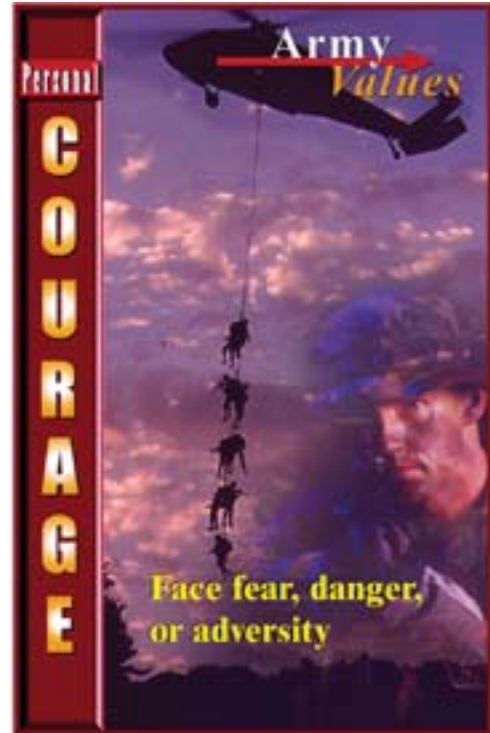


Fig. 5-3. “Personal courage” is a combination of physical courage and moral courage, usually in the most difficult of situations. This illustration clearly gives the sense of the danger of the unknown about to be discovered by these soldiers and their leader. There is no doubt that it has taken courage to get them into this position, and it will take courage to carry them through it as well.

ciples underlying those laws of war (those principles being that individual persons deserve respect as such, and that human suffering ought to be minimized).

As noted previously, the fundamental values of American society provide the third major formative influence on standards of military conduct. Tension may arise at times between the requirements of military activity and fundamental social values. When such conflicts occur in the American system and society, in the American military culture, the fundamental values of society in the end take precedence. They establish the final moral constraints on acceptable behavior by members of the American military.

These three major influences that shape the contents of the PME provide no simple equation for identifying permissible actions, even after the content of the PME has been specified. Recognizing the nature and relationship of the influencing factors merely provides a framework for considered judgment. The identification of such factors allows a more convincing summary of the central tenets of

the American PME that have emerged from the interaction of these formative influences.

The effect of those ethical guidelines in practice, however, cannot be captured completely in a listing. In his *Philosophical Investigations*, Wittgenstein proposed a form of ordinary language analysis that essentially claimed that the meaning of any sentence or utterance could best be understood in terms of the context in which it appeared rather than in terms of syntactical analysis.<sup>24</sup> A parallel sense applies to the values that constitute the American PME. They are best understood in the context of military experience rather than in terms of logical analysis and explanation. That may be one reason the process of professional socialization, relying heavily on example and role modeling, remains by far the most important means for perpetuating the military ethic. Classroom and academic discussions may assist the process of education and acculturation, but they cannot replace the experience of military practice as a means of inculcating values. That stipulation should be kept in mind regarding the description

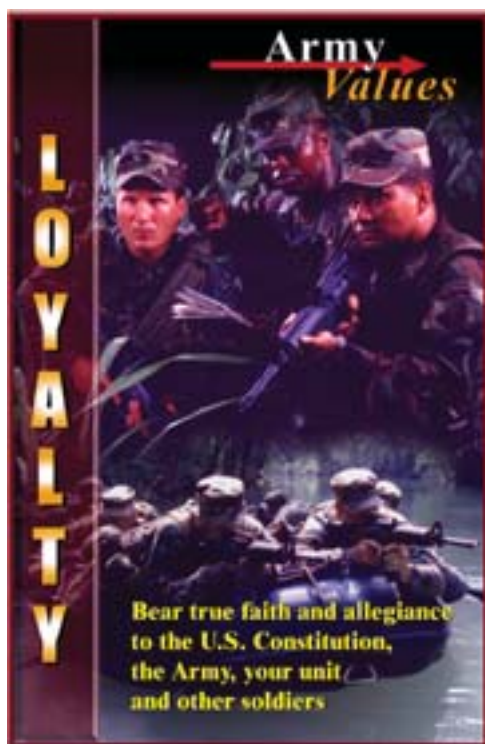
that follows.

The fundamental concepts that constitute the core of the PME are those that have emerged in this discussion. First and foremost, military officers are expected to be loyal to their organization and their country (Figure 5-4). During the Korean Conflict, under brutal duress, numerous American POWs collaborated with the enemy or performed actions demanded of them that were impermissible under military regulations. American dismay at such conduct by captured soldiers and determination to minimize future recurrences led President Eisenhower to promulgate The Code of Conduct (Figure 5-5) for Members of the Armed Forces of the United States in Executive Order 10631, 17 August 1955.<sup>25</sup> Standards established in that document grow out of the value of loyalty.

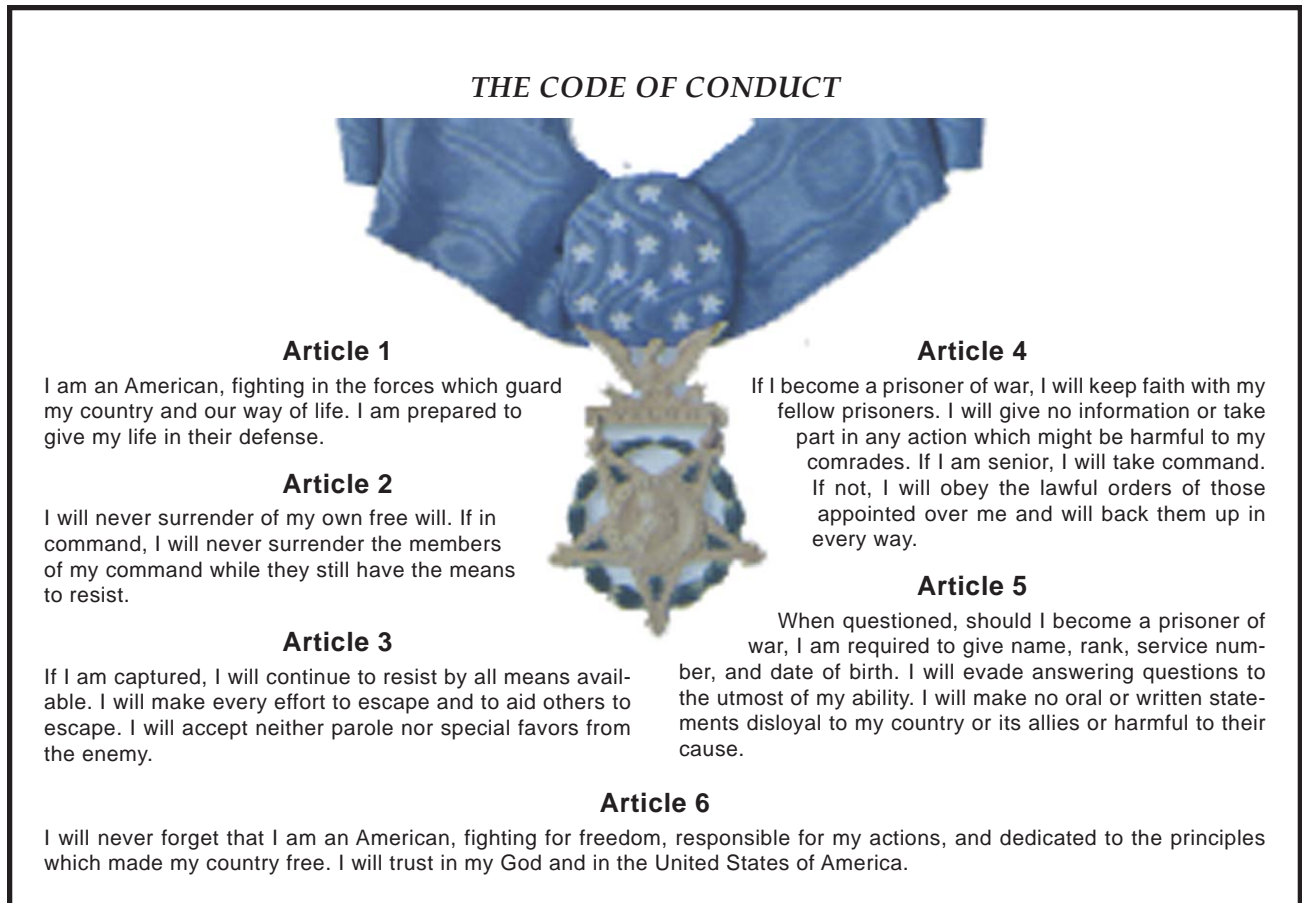
Another fundamental concept in the PME, selfless service (Figure 5-6), implicit in *The Code of Conduct*, follows necessarily from the ultimate liability of combat: loss of life. The same principle applies in many contexts in which the military institution expects the individual to subordinate personal interests to the requirements of military duty. In paying tribute to the heroes of D day in World War II, General Sullivan, then the Army Chief of Staff, emphasized selfless service:

I think these soldiers—the Eisenhowers, the Summers, and the Pinders and all the rest whose names are known only to buddies, loved ones, or God alone—did their duties and made their sacrifices for each other and for us. They epitomized the ethics of *selfless service*, the core value of American soldiers and, indeed, everyone in the country's armed forces.<sup>26(p26)</sup> [Emphasis added.]

Obedience that results from fear cannot be relied upon in crisis situations when immediate dangers overwhelm the threat of sanctions. The value of obedience in the military context must follow from commitment to the institution. Obedience in all circumstances relates directly to loyalty, selfless service, and the overarching emphasis on mission accomplishment (duty) (Figure 5-7). All three of those values result from the functional requirements of military service, just as do courage and integrity. Courage needs no further elaboration. Unless subordinates can rely on the honesty and sincerity of their leaders, components of integrity, trust will be elusive. Without trust in the unit's leadership, no combat organization will be nearly as effective as consistently successful performance in combat requires. Without accuracy in reports from subordinate headquarters, no commander can make

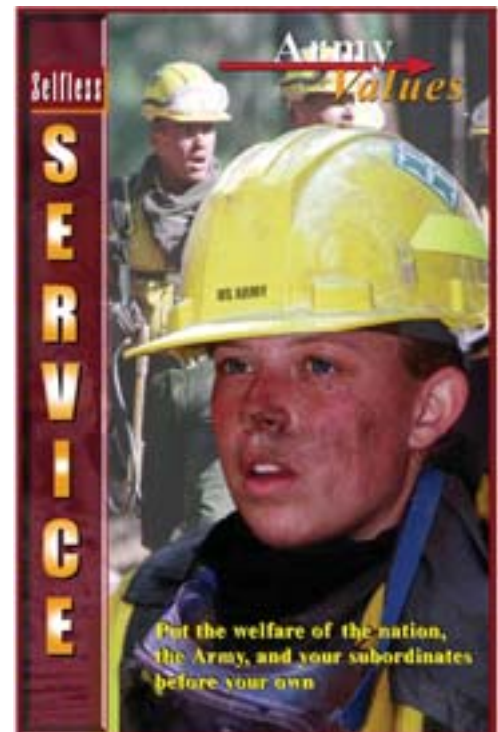


**Fig. 5-4.** "Loyalty" as it is depicted in the Army leadership poster series. Loyalty is a concept that has evoked considerable discussion over the centuries in militaries around the world. This poster stresses the official US Army view that soldiers need to be loyal to the US Constitution, their service, and their fellow soldiers.

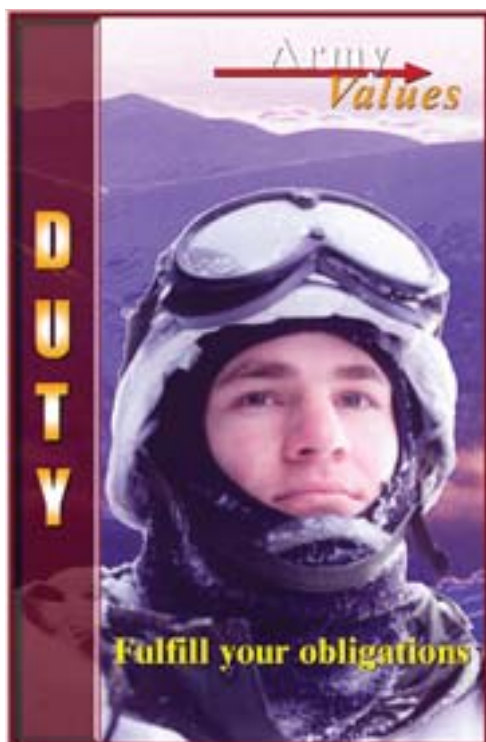


**Fig. 5-5.** Code of Conduct for Members of the Armed Forces of the United States. The original code was issued through Executive Order 10631 on 17 August 1955 by President Dwight D. Eisenhower, after it was realized that coercive “brainwashing” could cause even the most patriotic soldiers to be induced to make statements against their will. The code was amended through Executive Order 12017 on 3 November 1977 by President Jimmy Carter as a response to the *USS Pueblo* incident (in which a naval vessel was captured and held by the North Koreans), as well as the overall Vietnam experience. The change removed the suggestion of absolutes from Article 5, replacing “I am bound to give only ....” with “I am required to give....” The code was amended again through Executive Order 12633 on 28 March 1988 by President Ronald Reagan, to make the articles gender neutral. 53 *Federal Register* 10355 (1988).

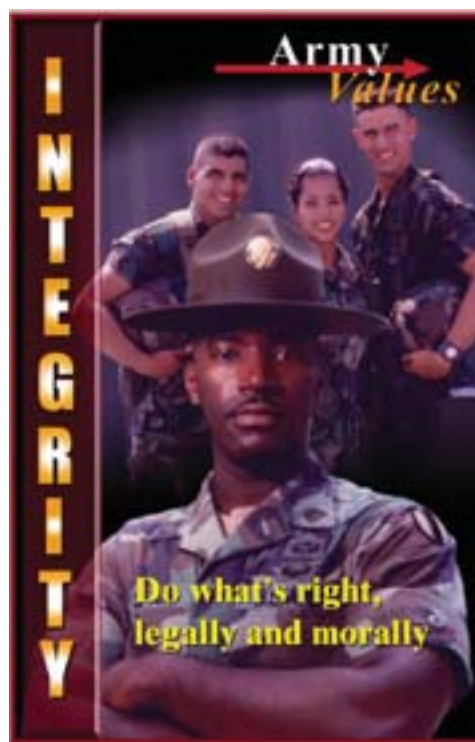
**Fig. 5-6.** “Selfless service” is a vital part of US Army leadership values. All soldiers know that at some time they may be called on to sacrifice themselves for the sake of others or the sake of the mission. The inclusion of selfless service on this list of leadership values not only emphasizes its importance but also reaffirms the acknowledgment of the sacrifice that soldiers may have to make.







**Fig. 5-7.** “Duty” as depicted in the US Army poster series on leadership applies to every soldier equally. The concept is straightforward: fulfill obligations. There is no need for further explanation. Soldiers must do their duties, just as they must be willing to sacrifice themselves, as necessary, for mission accomplishment.



**Fig. 5-8.** “Integrity” is a concept that has been part of militaries for centuries. This US Army poster, featuring a composite picture of genders and races representative of military service, helps convey the message that soldiers must do what they know to be right in all aspects of their military lives.

timely, informed decisions that will maximize opportunities for success in battle. The importance of integrity (Figure 5-8) appears undeniable and uncontroversial as well.

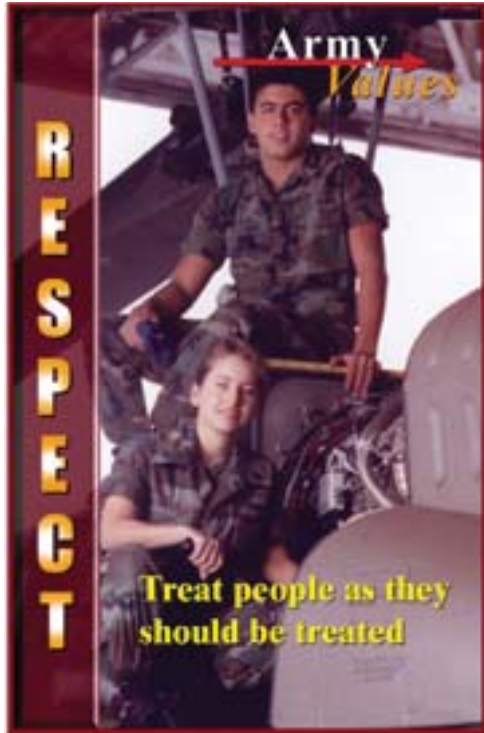
Military organizations have long recognized commitment to the welfare of one’s fellows and one’s subordinates as a practical benefit, a multiplier of combat effectiveness, but such commitment also flows from respect for the integrity and the fundamental rights of individual persons. In the American military, the functional aspect of the value of respect (Figure 5-9) receives strong reinforcement from the core American social value of individualism. In American culture, the worth of the individual has shaped all primary social institutions. The religious tradition that posits an immortal soul, the idea of equality before the law, and the principle of protecting individual rights from the power of the state each contribute to the value of individual soldiers that has become fundamental to the American military culture. That tradition buttresses

the appreciation of initiative in the American soldier, sailor, and airman. Initiative and independent action, which superficially appear to be oxymoronic entries in the expectations of a hierarchical, authoritarian institution, actually have great practical value.

Ambrose highlights the value of initiative in his examination of the Normandy invasion in 1944 when he emphasizes that in that time of crisis Americans made better soldiers than the Germans:

The contrast between the American and British officers, from generals down to lieutenants and NCOs, and their German counterparts could not have been greater. The men fighting for democracy were able to make quick, on-site decisions and act on them; the men fighting for the totalitarian regime were not.<sup>27(p17)</sup>

Whether or not one accepts Ambrose’s claim concerning the superior initiative of American soldiers, which may overlook many counterexamples a critic could cite, the importance of initiative in battle re-



**Fig. 5-9.** "Respect" is a central value for all militaries. The US Army emphasizes that respect should flow in all directions: leaders for their subordinates, subordinates for their leaders, and peer to peer. This respect for others, reflecting the respect for self and abilities that comes with effective training and discipline, is an important component of leadership at all levels.

mains unquestionable, and it is certainly the case that the enduring American social values of democracy and individualism distinctively shape the military culture and the military ethic for the armed forces of the United States. The perspectives that follow from honoring those values are conducive to independent thought and initiative.

Developing initiative in military officers remains an inexact behavioral science, of course, because of the delicate balance involved. Janowitz refers to that balance when he notes that "the development of a rational approach to innovation cannot supplant an uncritical willingness to face danger—the essence of the martial spirit."<sup>9(p35)</sup> He also asserts that "for [leaders] the heroic traditions of fighting men, which can only be preserved by military honor, military tradition, and the military way of life, are crucial."<sup>9(p35)</sup> These characteristics all emphasize conformity. Cultivating both conformity to institutional standards and initiative in action presents a continuing challenge but one that the American

military has historically met. As sociologist Hays observes concerning the development of military virtues, the "purpose is to teach autonomy in the context of structure, independence in the context of tradition."<sup>15(p4)</sup> (See Chapter 9, *The Soldier and Autonomy*, for a further discussion of these issues.)

While insightful analysts will note that any specific articulation of the American PME will be problematic in view of the penumbra of values that constitute the ethic, the following seven guidelines capture the central features of the professional code and the values of the separate services:

American military professionals

1. accept service to country as their primary duty and defense of the United States Constitution as their calling. They subordinate their personal interests to the requirements of their professional functions.
2. conduct themselves at all times as persons of honor whose integrity, loyalty, and courage are exemplary. Such qualities are essential on the battlefield if a military organization is to function effectively.
3. develop and maintain the highest possible level of professional knowledge and skill. To do less is to fail to meet their obligations to the country, the profession, and fellow warriors.
4. take full responsibility for their actions and orders.
5. promote and safeguard, within the context of mission accomplishment, the welfare of their subordinates as persons, not merely as soldiers, sailors, or airmen.
6. conform strictly to the principle that subordinates the military to civilian authority. They do not involve themselves or their subordinates in domestic politics beyond the exercise of basic civil rights.
7. adhere to the laws of war and the regulations of their service in performing their professional functions.

The promulgation of the values is the goal of an aggressive campaign within the Army.

The laws of war will change over time, slowly, and the core values of American society will evolve, even more slowly, eventually bringing about changes in the PME, but the central features of the code identified here will guide the conduct of members of the American military profession for the foreseeable future. The critical point to recognize is



that stable, enduring standards of conduct *do* exist. The processes of professional socialization in all the military services are designed to foster in the officer corps a deep commitment to professional values and to strengthen such values among all members of the armed forces. Americans can depend upon the military institution to carry out its responsibilities largely because of the PME and the institutional commitment to professional military values.

### **Pluralism and the Professional Military Ethic**

Strong limitations on behavior, notably in the form of a PME, a special group ethos, remain critical for military organizations for several reasons. First, the activity places great stress on individuals. Either the people performing the activity must exercise unusual self-discipline or the group must provide that discipline. In the most effective military organizations, both factors are present. Military forces, after all, inflict death and destruction on an incredible scale. Many soldiers will recoil in horror, retreat into a mindless fear, or lose control in some other fashion. Psychological support and a focus on commitments ameliorates such effects and enables individuals to endure extraordinary hardships. Second, in any large nation, and certainly in the United States, men and women join the armed forces with widely varying backgrounds. If values are those beliefs reflecting what persons hold to be important to them, it can be said with certainty that those joining the military will hold widely varying values. To create and maintain an effective military organization, the military leadership must institute a process of professional socialization that establishes some common attitudes and commitments.

For the leadership of American military services, the institutional commitment to the professional military values remains a beacon guiding conduct and policy decisions. In the process of professional socialization, new members learn the importance of loyalty, primarily to their unit and their peers; the requirement for competence in assigned duties; and the imperative of discipline. Everyone in command positions understands the necessity of soldiers' abilities and obedience to orders if military missions are to be carried out successfully. Unless the men and women in subordinate positions share that understanding, successful operations will be unlikely at best.

As previously noted, most Americans share certain fundamental values. For Americans serving

their country as soldiers, sailors, and airmen, supporting and defending the US Constitution provides the focus of their national service and a re-emphasis on the fundamental American social values of freedom, equality, individualism, and democracy that the US Constitution manifests. Such abstract concepts play at most a distant role in the daily activities of members of the military, and although such values seem more the stuff of Independence Day speeches than conscious factors in decision making, in problem cases they do structure the responses appropriate from an institutional point of view.

Problem cases arise in part because Americans do live in a decidedly pluralistic society and do not share all the same values or accord values the same importance. Even for those committed to the stated institutional values, conflicts will arise, if not moral dilemmas. Any discussion of military ethics must consider the resolution of value conflicts. Two such areas of conflict, the integration of women into military occupational specialties and homosexuals serving in the military, illustrate the ethical considerations that have been discussed in this chapter.

### ***Women in the Military***

The long history of military development that was reviewed earlier revealed only supporting roles for women, and minor supporting roles at that, up until the 1970s. Why did that situation change? One reason involved opportunity and equality. Besides being a civic obligation and a fearsome challenge in wartime, military service presents opportunity. Furthermore, in a society holding equality as a fundamental value, women came to expect that they would have the same opportunities as men in terms of federal employment.

Military leaders resisted the pressure of public and Congressional opinion because of a conflict among values. Defense of rights constitutes one of the primary purposes of the American military. However, if women have the legal right to serve in the military, how could military leaders rule against them? For a considerable period, the uniformed services raised the issue of duty and military effectiveness: Women in the armed forces, they claimed, would degrade combat readiness and combat effectiveness, besides introducing unwanted administrative complications. After all, the military accepts only those people who meet certain performance-based criteria. On the grounds of military effectiveness, for instance, the armed forces do not accept for service those who suffer from serious health

problems or physical abnormalities. In today's volunteer military, inductees must be physically capable and meet strict competency standards.

As soon as women gained sufficient political influence and established that their exclusion on the grounds of effectiveness was unwarranted, however, the rules changed. Although women in the military must still overcome prejudice in some cases, women in the United States have become valuable members of the serving military in other than the traditional roles allowed women. Their incorporation has proceeded deliberately, with careful consideration of combat readiness degradation. The pace of integration has also been a function of male attitudes changing very slowly. In the end, nonetheless, it should be noted that the social values of opportunity and equality have dominated.

Concerns about the rights of individuals have thus prevailed over limited utilitarian positions that hold that government leaders should choose the policy best serving combat readiness. Of course, a more comprehensive argument about what is best for society as a whole over the long term remains problematic. The more comprehensive utilitarian argument focusing on the overall good to society might favor the integration of women into military units as a long-term policy. Any decision based on the results of integration will be determined on contingent, consequentialist grounds.

Today only a distinct minority question the value of women in the military. The issue of concern to many more is the question of whether women should serve in combat. As one general reportedly observed, "Women with rifles and fixed bayonets in a forward position gives me heartburn."<sup>28</sup> Although he made that remark a number of years ago, the attitude persists, perhaps more strongly in the Army than in the other services. No existing law prevents women in the Army from serving in combat roles, but Army policy does so, and public opinion has yet to register sufficient support to force the US Army to allow women in combat roles.

Exclusion from direct combat roles certainly limits opportunities for advancement for military women, to the extent that one may well question the adequacy of measures instituted to provide equal treatment for women. Traditionally the fast track to promotion and advancement in a military career has been through the command of combat units, but women cannot command the close combat organizations in the armor, infantry, and field artillery branches in the Army. Exclusion from these positions inevitably limits career opportunities for

women in comparison to those for men.

If one sets aside concerns about seeing women wounded or killed, as many have following the American experience in the Persian Gulf in 1991, and realistically considers strength requirements, which some women can certainly meet, three issues become prominent: the menstrual cycle, periodic hormone imbalances, and pregnancy. Such influences on attitude and availability appear comparable to the kinds of administrative problems raised by a number of other conditions appearing in both men and women, ranging from migraine headaches to caffeine addiction to drug abuse. To argue that such factors justify a ban on women in combat roles appears questionable at best.

In the past, those arguing against opening any roles to women claimed that women too often become mothers whose responsibilities at home would detract from the mother's military performance, to include her availability. More frequently in recent years, however, fathers, and sometimes single-parent fathers, have been struggling with the same kinds of problems. Parental roles cannot be the basis for discrimination against women if the discrimination cites effectiveness in the military role. Contemporary American women quite justifiably expect equal rights and opportunities. For the military leadership, overcoming the structural bias against women in combat will require time and persistent efforts at education.

The US Army, albeit moving more slowly toward full integration of women than the other services, continues in that direction. Discrimination continues to fade. Approximately 92% of the US Army career fields were open to women as of 1 April 2000.<sup>29</sup> Only jobs requiring direct ground combat remain on the exclusion list, and discussion continues concerning that limitation.

### *Homosexuals in the Military*

Although the Clinton administration's "don't ask, don't tell" policy of 1994 concerning homosexuals temporarily deflected attention from the issue, the military services continue to discharge (a civil action) serving members who have either declared themselves to be homosexual or were found to have engaged in homosexual relations. Homosexual acts are also subject to criminal punishment. Is such discrimination against homosexuals acceptable? Legal precedent says yes. Ethical analysis provides a less certain answer. The situation reveals the tensions that exist between moral equality and the duty to

field the most effective fighting force possible.

For many years, American courts have upheld the military's special status concerning abridgment of the rights of individual service members. The special legal status of the military results from its unique mission to provide for national security. Its hierarchical nature and the requirement for immediate response to the authority of commanders have long been recognized as functional necessities for the successful accomplishment of that unique mission. A long list of court decisions in the United States has upheld this status and the legality of regulatory actions that follow from the functional requirements of the military's mission.<sup>30-36</sup> *Burns v Wilson*,<sup>33</sup> for instance, noted in 1953 that "the rights of men in the armed forces must perforce be conditioned to meet certain overriding demands of discipline and duty." The history of the special status accorded the military in relation to giving weight to institutional interests at the expense of individual rights indicates why the military, in legal rulings, has been granted considerable latitude concerning homosexuals.

The further question that remains, however, after the legal issues are sorted out, troubles many. They find it difficult to justify abridging the rights of a particular minority in society, namely, members of the military, in the name of defending the rights of individuals and the rights of the collective citizenry. In the process of indoctrination and socialization, military trainees are subject to harsh demands and severe psychological pressures. For all members of the military, commanders routinely curtail the right of free speech. People in the military may not form unions. Regulations severely limit choice in their personal affairs, and if they disobey the instructions of their superiors, they can be tried and imprisoned. Can such treatment be justified? The question applies directly to the treatment of a further minority—members of the military found to be homosexuals. Their personal lives become subject to intense investigation by their superiors, and they are also subject to procedurally discriminatory treatment as a matter of policy. There are several reasons for the military's reaction.

Social controversy concerning the acceptability of homosexual activity provides one obvious reason for discriminatory views. Besides long-standing social prejudices against homosexuals, at the time the regulations were written the majority of AIDS (acquired immunodeficiency syndrome) cases involved homosexuals. Some states (at the time of publication, California, Pennsylvania, Wisconsin,

and the District of Columbia) have prohibited discrimination against homosexuals. In others such as Texas, homosexual activities violate the law, and participants are subject to legal prosecution. But does this variety of opinion concerning homosexuality justify the preemptory treatment of homosexuals that is found in the military? In American society today, in cases of unequal treatment or discrimination by institutions, advocates must justify such treatment.

The legal precedents I have noted demonstrate that in the American legal context, military authorities will be granted wide discretionary powers in regulating the activities of individual soldiers so long as such regulation appears necessary for the preservation of order and discipline within the military institution. Private corporations could hardly justify the harsh treatment of recruits that is found in the military, if for some reason corporate activities appeared to dictate such preparation, but the requirement to prepare soldiers physically and psychologically for the trauma of combat justifies much. Proper preparation provides the best chance of survival, without even considering combat effectiveness. Nonetheless, the military accepts a general constraint on its regulatory efforts. The fundamental moral rights, not of soldiers as such, but of persons constitute that constraint. Those moral rights find expression in the broad principles stated above; thus, soldiers have a right for their autonomy to be restricted no more than necessary for the accomplishment of legitimate military purposes (legitimate implies both entailed necessity in a chain of instrumental steps and moral coherence and consistency in terms of the moral ends for which the institution exists), and they have a right to equal treatment by military authorities.

For many years, homosexual acts by members of the American armed forces have been straightforwardly illegal. The military views homosexual acts as unacceptable, "contrary to good order and discipline." Sodomy is an offense under *The Uniform Code of Military Justice* (UCMJ). Furthermore, for officers the UCMJ proscribes homosexual behavior as "conduct unbecoming an officer and a gentleman."<sup>37</sup>(Art134) As also noted previously, the military services discharge declared homosexuals under administrative provisions when no homosexual activity is involved. As AR600-20 makes clear, a basis for discharge exists if (1) the soldier has engaged in a homosexual act, (2) the soldier has said that he or she is a homosexual or bisexual, or made some other statement that indicates a propen-

sity or intent to engage in homosexual acts, or (3) the soldier has married or attempted to marry a person of the same sex.<sup>38</sup>(¶4.19d,[2b])

With respect to a variety of severe measures that restrict individual autonomy, to include discrimination against homosexuals, the courts have long considered the situation of the military to be a special case under law. The Supreme Court's decision in *Parker v Levy*, 1974,<sup>39</sup> recognized that the military is a separate society that has a clear set of social norms both well-established and peculiar to it, as well as its own criminal code and its own court systems. The Court noted in *Parker* that "while military personnel are not excluded from First Amendment protection, the fundamental necessity for obedience, and the consequent necessity for discipline, may render permissible within the military that which would be constitutionally impermissible outside it."

Discrimination against homosexuals thus becomes a matter of competing moral obligations. How should one resolve such conflicts? Which constitutes the most important consideration—the damage done to competing moral obligations or the recognized good that would result from eliminating a policy of discrimination against homosexuality? To answer such questions, one must turn to the competing moral obligations and the practical issues involved.

In American society, the moral demand that people should have equal freedom to express their own personality as they choose is accepted. In myriad ways, America has institutionalized the fundamental social values discussed earlier: freedom, equality, individualism, and democracy. Each of these four core values can be traced to the fundamental demand for the protection of autonomy, which has generated two guiding principles that constrain the actions of both individuals and the government in American society: individual rights deserve respect, and all persons deserve equal treatment unless there are compelling reasons to treat them unequally. The mechanism of rights, both legal and moral, with the former being founded upon the latter, has been the primary instrument in the process of institutionalizing the core values.

Because rights inevitably conflict, however, and because the security of the nation takes second to few other concerns, autonomy is sometimes circumscribed. In this conflict one encounters controversy, a lack of social consensus, and special difficulty when practical affairs require action.

Practical requirements and ethical principles appear to oppose each other in some aspects of pro-

fessional activities. All members of the military, and especially military leaders, have a strong obligation to support and defend the US Constitution. Perhaps the most basic responsibility in that regard is to be prepared to use force effectively to defend vital national interests. Here the abstract principle of autonomy confronts the obligation to make the armed forces as effective as possible. Does the issue of homosexuality impinge on that effectiveness? The most common factors cited in this regard are unit cohesion, healthcare costs, and risks to the general military population.

Unit cohesion begins at the squad and team level. The relationships forged in combat units among young males have long been acknowledged as the most important ingredient in fighting power. Combat effectiveness suffers most greatly when small unit cohesion is lost. What effect will the presence of known homosexuals in combat units have? The answer at present is that it is not known, but within the military leadership the consensus holds that admitting homosexuals represents a serious threat to cohesion. In view of their moral commitment to readiness and mission preparedness, to duty in a broad sense, military leaders who believe homosexual admission represents a threat to essential military capabilities must oppose such a move insofar as they can appropriately do so. They cannot responsibly advocate undermining the most important element in making American forces effective.

The prevalence of AIDS remains highest among the homosexual community. Though numbers are changing, that fact remains. The expense of treating AIDS patients represents a potentially crippling healthcare cost at a time of declining military resources. Should the military expose itself to such additional costs? In view of its responsibility for readiness, should it do so? AIDS remains primarily a disease of males (as of 2000, 83% of the cumulative total of AIDS patients in the United States were adolescent or adult males).<sup>40</sup> Over 60% of the cumulative total of those infected fall in the 20- to 39-year-old age group, the most important segment of the population for military recruitment and manning.<sup>40</sup> Although the actual number of soldiers who "seroconvert" has been declining since 1991, of the cumulative total of those infected, 94% have been male, the gender tasked with combat.<sup>41</sup>

Even critics would agree that significant numbers of military members with AIDS would threaten the general military population and thus military readiness. Furthermore, those infected would themselves be put at risk by overseas deployments. In



addition, the drain on medical resources that would result from treatment for a large number of AIDS patients would undermine the capability of the military to maintain the health of active duty members in general. AIDS patients suffer from “multi-organ system disease,” including neurological involvement in the later stages, as well as severe psychological pressures, to include the fear of death and social stigma. As a result, medical treatment requires considerably more resources and personnel than do most diseases. The military services have adopted policies towards those with AIDS that are quite similar to existing military medical policies for other debilitating or terminal diseases. Looked at from that perspective, the policies appear justifiable.

Decisions concerning the policy of discriminating against homosexuals by discharging those in the military who reveal themselves as homosexuals become a matter of weighing the risks introduced by homosexuals in the military against the undeniable evils of discrimination in terms of the principles of equality and individual rights. Before the national leadership makes further decisions in this matter, it must evaluate carefully the competing moral issues. Central concerns include the questions of how one sorts out the empirical issues and at what point does one conclude that the recognition of rights of a specific subset of society should no longer be subordinate to security considerations.

### **Moral Dilemmas of Leadership: Case Study**

Questions about women and homosexuals in the military involve applying the PME to *policy* issues. Of at least equal concern is the matter of applying the PME to *operational* decisions men and women in the military must make. The process of applying the PME to a moral dilemma, a situation in which all available alternatives necessitate violation of some moral guideline, will conclude the discussion in this chapter. Unfortunately, members of the armed services sometimes face such situations.

#### ***The Situation***

Colonel (COL) Gray commands the only armor brigade in US forces deployed in a small Middle Eastern country, Irabat. Forces of Sindonia, a hostile state to the north, invaded Irabat 3 days ago, sweeping south across the border and achieving complete surprise. American forces were held in reserve until 8 hours after the invasion, when their positions were attacked by two enemy divisions. For the next 2 hours, US forces conducted a delaying action

on the north side of the Khyler River as they tried to stem the rout of Irabati units that threatens the Irabati capital just 30 miles to the south. For all involved, the Khyler River, a major tributary more than half a mile across, has become critical.

The United Nations has condemned the invasion of Irabat, and forces from other NATO (North Atlantic Treaty Organization) countries as well as US reinforcements are preparing for movement. If the Sindonian forces can get across the Khyler, they can drive south rapidly and conquer Irabat before help arrives.

COL Gray is attempting to move his units across a highway bridge on the river, the only one for many miles east and west. The bridge has been prepared for demolition, and he has orders to blow the bridge as soon as his forces are across. Both the Irabati high command and COL Gray's superiors have made clear that the bridge must be blown so that the enemy will be halted long enough to reorganize Irabat's forces in defense of the capital. In addition, the US commander has emphasized that COL Gray must preserve his tanks for the battle south of the river if the allied force is to have a prayer of succeeding.

When the last two tank battalions tried to reach the long, narrow bridge, they found that the refugee flood fleeing the invaders had become uncontrollable. Masses of men, women, and children block the bridge and the approaches to it. Horns, loudspeakers, even machine-gun fire over the heads of the panicked crowds have made no impression. COL Gray has concluded that any attempt to block the flow of refugees on the approaches to the bridge will result in a fight between his soldiers and the desperate civilians. Sindonian forces are in sight on the horizon, pressing south toward the crossing site.

COL Gray, knowing he has to get his tanks across and blow the bridge, sees his options as limited. He can set up defensive positions on the north side of the bridge and try to hold the enemy at bay. Doing so will risk seizure of the bridge unless he blows it up, but without the bridge his holding force will be abandoned to the enemy. He knows his tanks undoubtedly are critical to further defensive efforts south of the bridge. If the bridge were clear, he might have a chance to withdraw rapidly across the bridge after defending and still save some of his tanks, though they would be easy targets on the long bridge span. He can see, however, that civilians will clog the bridge for some time to come. He can order his units to drive into the packed masses of people. If they do so, many civilians will die. As soon as the tanks are across, he apparently must order the engineers to blow the bridge, even if it is still crowded with refugees.

Mission requirements leave no doubt about the importance of getting the tanks across the bridge and preventing the passage of the enemy. COL Gray has called his division commander, who, in response to a description of the problem, tells COL Gray only that he must get his tanks across and he must slow the enemy advance by destroying the bridge. Beyond that, he tells COL Gray, “Call the shots the way you see them. You're the man on the spot.”



### *The Analysis*

Besides the fact that directly harming noncombatants would violate the laws of war, COL Gray recognizes that US forces are in Irabat to defend and protect the people of that country. To kill them in the process appears patently contradictory. He cannot accept the alternative of directing his armor units literally to drive over the fleeing refugees. He knows, nonetheless, that he must slow the oncoming enemy forces if he is to accomplish his mission and serve the larger interests of both the United States and Irabat.

COL Gray also feels a strong loyalty to and a deep responsibility for his men. To abandon some of them on the north side of the river appears unacceptable in terms of that responsibility, besides the fact that he needs all his forces for further operations. He sees two irreconcilable moral obligations: doing what is necessary to accomplish a vital military mission and protecting the lives of the innocent. He apparently cannot do both. If he accomplishes his mission, he must sacrifice civilian lives. If he refrains from injuring civilians, he fails in his mission, jeopardizing not only his own men but the chances of successfully defending the country. Many more civilian lives may be at risk if the enemy forces sweep south, not to mention the American and Irabati military units. In one sense, COL Gray must decide whether the ends justify the means: whether the end of defending the country justifies sacrificing civilian lives.

Focusing on duty can help clarify the alternatives in this situation. Duty requires adherence to the requirements of the PME, which demands adherence to the laws of war, under which soldiers cannot inflict direct, intentional injury on noncombatants. Duty also requires that the mission be accomplished, even at the cost of the lives of one's soldiers and one's own life. Soldiers do not have a right not to be killed; noncombatants do. When situations involve a choice of risk to soldiers or a risk to noncombatants, soldiers must accept increased risk before subjecting noncombatants to harm. How much risk, unfortunately, cannot be established by a simple formula.

In the Irabati situation, nonetheless, COL Gray must choose a course of action that will satisfy competing requirements to the greatest extent possible. One defensible solution would be to leave one battalion on the north side of the river to hold the enemy as long as possible. A defensive stand should allow time for the other battalion to ease its way

into the refugee flow and get across the river. When the capability to blow the bridge becomes endangered, COL Gray must give the order to destroy it, even if civilian lives are endangered.

Such a decision would meet the conditions of a just war version of double effect, which Paul Christopher claims "the United States seems to have adopted ... so that one may undertake military operations aimed at legitimate objectives or targets even though the operations will also have foreseeable 'bad' consequences."<sup>42(p102)</sup> He goes on to note the four conditions necessary for double effect to justify an action: "(1) The bad effect is unintended; (2) the bad effect is proportional to the desired military objective; (3) the bad effect is not a direct means to the good effect ...; and (4) actions are taken to minimize the foreseeable bad effects even if it means accepting an increased risk to combatants."<sup>42(p102)</sup>

All the conditions of double effect appear to be met if COL Gray chooses to defend the north side of the river and wait until the last moment before blowing the bridge. He certainly will not intend to kill and injure civilians, though he foresees that result. The military situation is such that the good effect, blocking the enemy advance and giving American and Irabati forces a chance to defeat the invading Sindonians, is indeed proportional to the loss of civilian life on the bridge. Civilian casualties certainly do not provide the means to accomplish COL Gray's mission; they are a foreseeable but undesired result. And in defending the north side of the bridge as long as he can, COL Gray does accept increased risk to his own forces.

If the principle of double effect can withstand moral analysis, as many believe it can, COL Gray would appear to have made a defensible decision if he acts as described. No easy formula or set of rules presents a clear, uncontroversial answer to the question of what action COL Gray ought to take in these difficult circumstances, but application of the PME and the broader values of the US Constitution provide a framework for evaluation both before and after the fact. In the end, COL Gray and others in similar situations must act so as to correct most effectively the wrong created by the enemy invasion while honoring the principle of noncombatant immunity and the PME to the greatest extent possible. In this case, the actions of defending the bridge with a portion of his force and then blowing the bridge, whoever is on it, seem to satisfy those criteria better than any available alternative.

### Lieutenant Stone Revisited: Can His Dilemma Be Resolved?

It is now time to return to Lieutenant Stone's situation. Recall that he must take action. Three of his soldiers have been captured and probably face brutal treatment by the enemy. An enemy prisoner in Stone's custody apparently knows where the American prisoners are, knowledge that would give Stone a chance to rescue them before he must leave the area entirely—and thus abandon them to their fate. But the enemy prisoner refuses to divulge the information.

The first step is to determine the facts of the case and then to recognize the legal considerations. There is one stark fact: Torturing the prisoner is specifically prohibited by regulations that reflect the international laws of war. *The Law of Land Warfare*, US Army Field Manual (FM) 27-10, states, "[P]risoners of war must at all times be protected, particularly against acts of violence or intimidation..."<sup>17(¶89)</sup> Lieutenant Stone has sworn to obey the legal orders of his superiors and to uphold the US Constitution. On both counts, torture is prohibited, for US Army regulations constitute the legal orders of superiors and the US Constitution requires adherence to the international laws of war ratified by the US Congress. These include the Geneva Conventions of 1949 concerning the treatment of prisoners of war, which are presented in FM 27-10. In addition, a foray forward into enemy territory would hardly be consistent with the apparent intent of Lieuten-

ant Stone's commanders who have ordered him to withdraw.

However, Stone has an obligation to care for his subordinates. Beyond that solemn obligation of command, taking steps to free the American prisoners will strengthen the morale and resolve of his unit, barring some disastrous development during the rescue mission. Stone's platoon will recognize that the leadership will do everything possible to take care of the members of the unit, which in turn will strengthen cohesion and motivation to carry out assigned missions. Further, Stone recognizes that leaving the POWs in enemy hands probably means abandoning them to their deaths.

In opposition, apparently, are the demands of loyalty to one's men and one's unit, on one hand, and adherence to the demands of military justice and international law, on the other. In this case, torture is unacceptable under the institutional guidance provided by the US military. Stone can mount a rescue attempt, he can further interrogate the prisoner, and he can even try to bargain with the prisoner—but he cannot torture him, just as he cannot murder him. Commanders, by law, may need to do, or refrain from doing, many things that they, as well as their subordinates, dislike. If he decides to put pressure on the prisoner to induce him to provide information, Lieutenant Stone must recognize that he is not doing so as a result of any official sanction nor as a defensible result of a casuistic application of the American PME.

### CONCLUSION

Discussions in this chapter should at least make clear that while moral guidelines for members of the armed forces can be identified, explained, and justified, it is not possible to make all moral decisions straightforward. Even though the "rules" in the POW case are clear, what a specific leader would do in such a difficult situation, and what should be excused, should the prohibitions concerning the mistreatment of prisoners be violated, remain difficult questions.

The moral landscape of the soldier has always been difficult, perhaps more so now than ever before when the ramifications of decisions made by both political and military leaders on the international stage are considered. Of the contemporary

world, Keegan observes, "Politics must continue; war cannot. The world community needs, more than it has ever done, skillful and disciplined warriors who are ready to put themselves at the service of its authority. Such warriors must properly be seen as the protectors of civilization, not its enemies."<sup>1(p391)</sup> The experiences of United Nations' forces beginning in 1990 strongly emphasized the expanding role of peacekeeping and peacemaking operations, as well as the difficulties of such undertakings. Keegan's observation appears especially applicable today, highlighting as it does not only the important role of the profession of arms but also the military ethics under which it functions.

### Acknowledgment

The case study concerning Lieutenant Stone that opens this chapter is loosely based on one presented by Charles Ogletree in "Under Orders, Under Fire," part of the Columbia University video-tape series, *Ethics in America*, 1989.

Many of the points in the discussion of homosexuals in the military reflect material in Hartle AE, Christopher PP. AIDS victims and military service. In: *Biomedical Ethics Review* 1992. Totowa, NJ: Humana Press; 1993: 31–50.

### REFERENCES

1. Dyer G. *War*. New York: Crown; 1985.
2. Gelven M. *War and Existence: A Philosophical Inquiry*. University Park, Pa: Pennsylvania State University Press; 1994.
3. Vayda AP. Hypotheses about functions of war. *Nat Hist*. 1967;76(10):48–50.
4. Keegan J. *A History of Warfare*. New York: Alfred A Knopf; 1993.
5. Divale WT. *Warfare in Primitive Societies: A Bibliography*. Rev ed. Santa Barbara, Calif: ABC-Clio; 1973. Quoted by: Keegan J. *A History of Warfare*. New York: Alfred A Knopf; 1993.
6. Hackett JW. *The Profession of Arms*. New York: Macmillan; 1983.
7. Huntington SP. *The Soldier and the State: The Theory and Politics of Civil-Military Relations*. New York: Vintage Books; 1964.
8. Thompson J. *The Lifeblood of War: Logistics in Armed Conflict*. London: Brasseys; 1991: 38. Quoted by: Keegan J. *A History of Warfare*. New York: Alfred A Knopf; 1993.
9. Janowitz M. *The Professional Soldier, A Social and Political Portrait*. Glencoe, Ill: Free Press; 1960.
10. Barber B. Some problems in the sociology of the professions. In: Lynn KS, ed. *The Professions in America*. Boston: Houghton Mifflin; 1965: 15–34.
11. Hartle AE. *Moral Issues in Military Decision Making*. Lawrence, Kan: University Press of Kansas; 1989.
12. Matthews LJ. Is the military profession legitimate? *Army*. 1994;44(1):16.
13. Nye RH. *The Challenge of Command: Reading for Military Excellence*. Wayne, NJ: Avery; 1986.
14. Sorley LS III. Competence as an ethical imperative. *Army*. 1982;34(8):42–48.
15. Hays K. *Practicing Virtues: Moral Traditions at Quaker and Military Boarding Schools*. Berkeley: University of California Press; 1994.
16. Shakespeare, William. *The Life of King Henry the Fifth*. Act 4, scene 1.
17. US Department of the Army. *The Law of Land Warfare*. Washington, DC: DA; 1956. Field Manual 27-10.
18. Naylor SD. Core of the matter: Army defines ethics in seven central values. *Army Times*. December 16, 1996:3.
19. US Department of the Army. *Army Values*. Washington, DC: DA Message. 17 February 1998.

20. US Department of the Army. *Army Leadership*. Washington, DC: DA; August 1999. Field Manual 22-100.
21. US Department of the Navy. NAVNEWS 054/92, NNS212 (citing NAVOP 030-92). CNO outlines core values of the United States Navy. *Navy News Service*. 29 October 1992.
22. Wakin MM. *Professional Integrity*. The Alice McDermott Memorial Lecture in Applied Ethics, Lecture 6. Colorado Springs, Colo: US Air Force Academy; 3 April 1996: 16.
23. US Department of the Navy. *The Commander's Handbook on the Law of Naval Operations*. Washington, DC: DN; July 1987. NWP 9, 6-1.
24. Finch HLR. *Wittgenstein—The Later Philosophy: An Exposition of the Philosophical Investigations*. Atlantic Highlands, NJ: Humanities Press; 1977: 23–26, 90–94.
25. US Department of Defense. *The US Fighting Man's Code*. Washington, DC: DoD; 6 August 1959. DoD Pamphlet 1-16.
26. Sullivan GR. D-day plus fifty years. *Army*. 1994;44(6):20–27.
27. Ambrose SE. Why we won the war: The politics of WW II. *Army*. 1994;44(6):12–19.
28. Underwood L. *Women in Combat*. Unpublished paper distributed by Women's Equity Action League, Washington, DC, 1979.
29. Randy Newman, Chief, Classification and Structure Branch, DCSOPS, PERSCOM, US Army, 2461 Eisenhower Avenue, Alexandria, Va. Personal Communication, 27 November 2000.
30. *In re Grimley*, 137 US. (1890).
31. *Schenck v United States*, 249 US. (1919).
32. *Dennis v United States*, 341 US. (1951).
33. *Burns v Wilson*, 346 US. 137, 140 (1953).
34. *Orloff v Willoughby*, 345 US. (1953).
35. *United States ex rel. Toth v Quarles*, 35 US. (1955).
36. *United States v Priest*, 21 USCMA 564, 45 CMR 338 (1972).
37. Department of Defense. *Uniform Code of Military Justice*. Washington, DC: DoD; 2000.
38. US Department of the Army. *Enlisted Personnel*. Washington, DC: DA; 15 January 1985. Army Regulation 635-200.
39. *Parker v Levy*, 417 US 733 (1974).
40. Centers for Disease Control and Prevention. Divisions of HIV/AIDS Prevention. Basic statistics—cumulative cases. Available at: <http://www.cdc.gov/hiv/stats/cumulati.htm>. Accessed 27 August 2000.
41. Phil Renzullo, MD. US Military HIV Research Program. Rockville, Md. Personal Communication, 29 November 2000.
42. Christopher PP. *The Ethics of War and Peace: An Introduction to Legal and Moral Issues*. Englewood Cliffs, NJ: Prentice Hall; 1994.



# Chapter 6

## HONOR, COMBAT ETHICS, AND MILITARY CULTURE

FARIS R. KIRKLAND, PhD\*

---

### INTRODUCTION

#### HONOR

- Integrity
- Taking Care of Subordinates
- Perversions of Honor

#### COMBAT ETHICS

- Restraining Military Personnel From Committing Atrocities
- Enabling Military Personnel to Carry Out Morally Aversive Acts
- Strengthening Resistance to Combat Stress Breakdown

#### MILITARY CULTURE: A RESPONSIBILITY OF COMMAND

- Authority, Discipline, and Maladaptive Cultural Practices
- Building Support for Discipline and the Command Structure
- Elements of an Ethically Supportive Military Culture

### CONCLUSION

\*Lieutenant Colonel (Retired), Field Artillery, United States Army; Battalion Executive Officer, 4th Battalion, 42nd Field Artillery (Vietnam, 1967–1968); Senior Research Associate, University City Science Center, Philadelphia, Pennsylvania; Guest Scientist, Division of Neuropsychiatry, Walter Reed Army Institute of Research, Washington, DC (Dr. Kirkland died 22 February 2000)



SP4 Michael Crook

*Perimeter Patrol*

Vietnam

This artwork depicts three soldiers working together as a team: one helping another, while the third waits, gun at the ready in case the enemy is encountered. This teamwork, whether in a squad, platoon, company, or higher level, is the foundation of an effective military. Available at: [http://www.army.mil/cmh-pg/art/A&I/Vietnam/p\\_3\\_4\\_67.jpg](http://www.army.mil/cmh-pg/art/A&I/Vietnam/p_3_4_67.jpg).

Art: Courtesy of Army Art Collection, US Army Center of Military History, Washington, DC.

## INTRODUCTION

Military personnel, who function in the midst of moral and material chaos, are dependent on an ethically coherent context to enable them to persevere in their missions and to protect their sanity and character.<sup>1</sup>(pp5ff,165ff,198) Further, the foundation of combat effectiveness is cohesion—which develops in a climate of integrity, trust, and respect across ranks. Trust and respect derive in part from adherence to mutually agreed upon definitions of acceptable behavior. While a superficial analysis might suggest that ethical considerations are meaningless for organizations dedicated to missions of destruction, the opposite is true. A system of credible ethics in the culture of an armed force is an essential foundation for its fighting power.

First a word about culture. Human beings, having fewer preprogrammed behavioral patterns than other mammals, need older people to teach them how to cope with their environment. Culture is a set of behaviors, values, and ways of assessing circumstances passed from an older generation to a younger. It provides the young human with a substitute for instincts—a set of responses to enable him to deal with many situations. Parents and elders often portray the beliefs they teach as absolute virtues, but culture is really nothing more than the behaviors and values that worked for members of preceding generations.

Ethical systems are the components of culture that people create to guide behavior and facilitate human interactions by defining values and actions as virtuous or evil. People create ethics to meet practical and psychological needs. Awareness of these needs enables them to approach ethics from an active, adaptive, and operational perspective rather than from a passive, normative perspective. The needs of people in a military culture differ from those of their civilian compatriots because in the performance of their military duties they often must behave in ways that would normally be judged immoral by the larger culture.

An important role of ethics is helping military men and women preserve their characters in the midst of the ambiguities of war. Fromm defines character as the “forms in which human energy is canalized [channeled] in the process of assimilation and socialization.”<sup>2</sup> Shay and Munroe define it as “a person’s attachments, ideals and ambitions, and the strength and quality of the motivational energy that infuses them.”<sup>3</sup>(pp393–394) Taking these dynamic views of character as a point of departure, when I

mention character in this discussion I will be referring to the abilities to form stable relationships, to believe in the efficacy of one’s actions, and to depend on one’s values as guides to behavior. For an ethical system to be useful in a military context, it has to enable soldiers to persevere in their military duties while preserving their characters.

This chapter is about how people experience military life and how they treat each other; it is not about abstract ideals, virtues, or codes of conduct. It is about the soldier whose duty is to look through the sights of his rifle and shoot another human being. Whether he forbears to fire, fires with the intent to miss, or shoots to kill, he must live with the emotional consequences for the rest of his life. It is about the new lieutenant detailed to inventory the receipts from the officers’ club slot machines. The club officer shows him four piles of coins, saying, “This one is for the club, this one for me, this one for you, and this one for the post commander.” What the lieutenant does—acquiesces or reports the club officer to the provost marshal—has consequences for his character and for the service.

This chapter is about the colonel commanding a brigade who is ordered to launch an attack that he is certain will lead to the death or wounding of more than half of his soldiers and will fail to accomplish the mission. Does the colonel disobey the order and lose his command—and with it the ability to take care of his troops—or does he obey and become complicit in the slaughter of his personnel? His character is challenged, as is the character of his superiors, and the ethical climate of the armed force.

This chapter is also about the company commander told by his superior to exchange, on paper, personnel and pieces of equipment with other units so he will be able to state on his quarterly status report that his unit qualifies for a peak readiness rating. Such a maneuver seems innocuous, but there are consequences. It deprives senior commanders of information necessary to act to improve the actual readiness of the unit. It potentially puts soldiers in jeopardy because the unit will be committed to action in accordance with the readiness rating stated on the report. Finally, it approves lying as a form of career-enhancing behavior.<sup>4,5</sup>

The contingencies of reinforcement that evolve in a military culture determine its members’ behavior. When commanders shape, support, and model behavior and values that are realistic and relevant

in the context of the situation their subordinates face, they create an ethical system that works. It works because it supports the fighting efficiency of the organization and the psychological welfare of its members.

This exploration of the complex ways in which ethical and psychological factors interact to affect fighting power is based largely on research conducted by the Department of Military Psychiatry of the Walter Reed Army Institute of Research (WRAIR). During the period from 1979 to 1993, the various individuals assigned the position of Deputy Chief of Staff for Personnel, US Army, tasked WRAIR to investigate the effects of the human dimensions of the US Army on the development of high performance units and on resistance to combat stress breakdown. This author, a trained psychological researcher and military historian, joined the WRAIR team to evaluate many of the issues addressed in this chapter. His interpretations are informed by his experiences as a line officer from

1953 to 1973, and by the observations of his military colleagues. The author's service included duty as an artillery forward observer in the closing stages of the Korean War, company and battery commander during the interwar years, and battalion executive officer and divisional staff officer during the Vietnam War. His research is complemented by an extensive literature of memoirs, oral histories, and archival records.

There are three sections in this chapter. The first is an analysis of honor, the central ethical construct that has defined military personnel for centuries. The second is an examination of the functions of combat ethics—keeping behavior within bounds compatible with the values of the larger culture, sustaining those who must kill other human beings, and protecting the characters of combatants. The third section is a discussion of military culture as a function of command and the cultural components that could comprise an effective ethical system for an armed force in the 21st century.

## HONOR

Honor is a complex concept that has evolved over at least 5,000 years and is continuing to evolve at the present time. Several components of honor have endured through time and are essential to the effectiveness of a military force in the 21st century. Two components will be discussed—integrity and taking care of subordinates. The third subsection will discuss the danger of assertions of honor being perverted to serve dishonorable ends.

### Integrity

Integrity is the fundamental component of honor. In an institutional setting such as the military, the term refers to the characteristic of consistently choosing and acting in accordance with one's beliefs and values. To be—and to be perceived as—a person of integrity, those guiding beliefs and values must in turn be consistent with the commitments inherent in the institutional role that the individual has accepted. The significance of integrity for the military will be explored in the following discussion; one conclusion will be unavoidable: Integrity is based on a commitment to honesty that pervades individual and institutional behavior and thought. Honesty is under assault in many spheres of American culture—business, government, communications, the academic world, and the armed forces. As a result, integrity today often seems to be in short supply. This is a matter of particular

concern in the US Army where consequences of dishonesty can be catastrophic for national interests, and fatal for junior personnel. Spin-doctoring, damage control, disinformation, and cover-ups are some of the many ways of avoiding confrontation with the truth that have been used to support the power structure in the armed forces. The terms are new but the practice is old. The long delay in acknowledging that American service members were exposed to toxic chemicals during the Persian Gulf War is a recent example.<sup>6</sup> During the Vietnam War, obligatory body counts, the Hamlet Evaluation System (Exhibit 6-1), and clandestine bombing operations were aspects of a military culture of deceit. General Douglas MacArthur's denial of the presence of Chinese soldiers in Korea in November 1950 was deceit at the highest level. The failure of subordinate US Army commanders, who knew the Chinese were there, to stand up to him constituted a chain of dishonesty down to the level of battalion command—all of which was acceptable to the military culture of the time.<sup>7</sup>

When a military institution embraces integrity as its basic way of doing business, it becomes stronger. Leaders and subordinates can plan and act knowing that their view of the situation is accurate. They can count on each other to behave in predictable ways. And, perhaps most important in the 21st century, they can trust each other to make their force an active learning institution—one that is constantly



**EXHIBIT 6-1****THE HAMLET EVALUATION SYSTEM**

In 1967 the staff of the US Military Assistance Command, Vietnam (MACV) developed the Hamlet Evaluation System to measure pacification of the Vietnamese population. The objective was to demonstrate that the Americans and the Republic of Vietnam (RVN) were winning the minds and hearts of the Vietnamese population, thus eroding the support base of the Vietcong. The results of monthly surveys of pacification were printed by a computer as a single digit (1–5, denoting the degree of control by its enemy, the Vietcong) for each hamlet in its geographical location on maps of Vietnam. The maps were used by policy makers in South Vietnam, the Pentagon, and the White House. The idea had merit, but there were three problems. First, the US district advisors responsible for making the surveys of the hamlets did not have the capability (staffing, vehicles, security, and knowledge) for making accurate assessments. Second, the district advisors were almost powerless to influence the bases for loyalty to the United States or the Republic of Vietnam. And third, senior officials put pressure on their subordinates to make the surveys show positive progress. The Hamlet Evaluation System quickly became degraded from an information system to a device by which officers could impress their superiors. The figures were adjusted by every echelon of the advisor hierarchy. Though the system became completely fraudulent, senior military staff and policy makers believed that current systems were effective. Thus it continued to guide decision makers away from providing villagers security from the Vietcong—a losing policy—and toward search and destroy operations—another losing policy.

Sources: (1) Sheehan N. *A Bright Shining Lie: John Paul Vann and America in Vietnam*. New York: Random House; 1988: 697–698, 732. (2) Kinnard D. *The War Managers: American Generals Reflect on Vietnam*. New York: Da Capo Press; 1991: 107–108. (3) Sorley L. *Honorable Warrior: General Harold K. Johnson and the Ethics of Command*. Lawrence, Kan: The University Press of Kansas; 1998: 196, 227–241.

examining itself and the threats it faces with a view to improving its capabilities.

***Integrity and Military Operations***

Integrity is an indispensable part of military culture not because it is virtuous, but because it works. It provides a factual foundation for operational coordination. When reconnaissance elements send reports that are true, commanders can make plans with accurate knowledge of enemy dispositions. When progress, casualty, and materiel status reports are correct, commanders can take action to strengthen subordinate units and can assign them missions that are within their capabilities. When adjacent units keep each other informed honestly about the opposition they face, each can use its strength appropriately to cover its neighbors' vulnerabilities. Military organizations in which these conditions obtain are more likely to win than those in which decisions are based on information that subordinates believe their superiors would like to hear.

Integrity includes putting duty before personal interests. Duty means the mission, the needs of one's subordinates, and the efficiency of the unit. Sometimes putting duty first can be contrary to one's self-interest. An officer commanding a battery of self-propelled howitzers who had felt the lash of

his colonel's tongue about keeping all of his equipment operational would be reluctant to report that six of his eight weapons had nonoperational power rammers. If he tells the truth, he risks getting chewed out or even relieved, but he provides his colonel and higher echelons of command with information that could lead to a modification to improve the durability of the rammers or procedures to keep the weapons operational without the rammers.

The soldier who reports a criminal act risks retaliation by the perpetrator and his friends, but he helps to maintain the standards of the organization and protects his comrades. Each member of a military service faces conflicts between duty and his own interests every day. By choosing the harder right he strengthens both his own honor and the ethical climate of his unit. But that does not make such choices any easier.<sup>8</sup>

A classic example of the effects on military operations when honesty is not part of the culture of an armed force is the defeat of the North Vietnamese Army and its South Vietnamese auxiliaries (the Vietcong) during the Tet offensive of January and February, 1968. The North Vietnamese punished subordinates who reported bad news. Reports of failure or of deficiencies in resources were perceived as both incompetence and disloyalty. As a result, the high

command received optimistic reports, and used these reports to confirm their hopes that their opponent was weakening and that the South Vietnamese people were ready to rise against their government.

The Tet offensive was an all-out effort to defeat the US forces, topple the Saigon regime, and win the war. It included total commitment of North Vietnamese and Vietcong units on multiple fronts, a shift from using terror only against locally hated officials to assassination of any persons who might

be a focus of resistance no matter how popular they were, and seizure of local political control by a clandestine Vietcong government.

The circumstances in South Vietnam in 1968 were far from what their reports had led the North Vietnamese government to believe. Their military units were defeated everywhere, the assassinations they carried out alienated many South Vietnamese who had supported them, and the Vietcong infrastructure was rendered politically impotent. Unfor-

## EXHIBIT 6-2

### PATTERNS OF DECEIT IN US POLICY MAKERS

In 1971, when popular opposition to the American war in Vietnam was approaching its apogee, a government official with access to the most secret documents on US policy in Vietnam released those documents to the *New York Times*. *The Pentagon Papers*, as the documents came to be known, make it clear that the US intervention in South Vietnam, which had begun in 1954 when the French were expelled from Vietnam, was motivated by fear that the states of the Pacific rim would be taken over by communist regimes.<sup>1</sup> In 1954, the United States had been fought to a standstill in Korea by Chinese and North Korean communists. Communist insurgencies were flourishing in Malaysia and the Philippines. China and Indonesia were ruled by communist regimes. Singapore was on the point of electing a communist government. A communist regime in North Vietnam had defeated and expelled the French from Vietnam. The United States was committed to supporting elections to determine the government of South Vietnam. Faced with certain defeat, the United States reneged and began programs of progressive military and economic support for the South Vietnamese. President Lyndon Johnson did not trust the public to understand this purpose of the US intervention, so he espoused justifications, such as a need for Vietnamese oil and South Vietnamese requests for US protection against North Vietnamese aggression, that were subsequently demonstrated to be untrue.<sup>2,3</sup> For instance, the notion that the United States intervened at the request of the South Vietnamese government was false because that government was an American creation, and the Americans assassinated leaders—including Ngo Dinh Diem, the Chief of State, in 1963, as well as his brother—who did not do as they were told.<sup>4</sup> Likewise, the Tonkin Gulf incident, a North Vietnamese attack on US military ships used to get the Congress to give Johnson power to expand the military commitment via the Tonkin Gulf Resolution of August 1964, was almost immediately exposed as a fraud. The North Vietnamese attack was in direct response to attacks by South Vietnamese forces on North Vietnamese coastal installations, guided by US destroyers operating just outside the 3-mile limit. Robert McNamara, the US Secretary of Defense, denied any US involvement.<sup>5</sup>

Routinely inflated reports of substantial progress coupled with unending requests for more troops (troop strength increased from 185,000 at the end of 1965 to a wartime high of over 500,000<sup>4(p336)</sup> in 1968) sapped the credibility of the senior commanders. With no vital US interest at stake, there was no criterion for progress in the war. There was no sense of land captured and held, or of military objectives met. The number of dead enemy soldiers became the only available indicator, and it became so important that senior commanders urged subordinates to inflate their body counts.<sup>4(p696)</sup> When critics totaled the body counts and announced that it would appear that there were almost no enemy soldiers left alive, yet they kept on attacking, another fraud was revealed.<sup>6</sup> By the time Tet 1968 came along, a substantial portion of Americans were disinclined to believe official statements, even though in the case of Tet 1968 the official statements were relatively truthful. As US officials praised the progress South Vietnamese forces were making during the withdrawal of US forces between 1970 and 1973, popular disbelief continued, and was ultimately validated by the total and rapid victory of North Vietnamese forces in 1975.

Sources: (1) Sheehan N, Smith H, Kenworthy EW, Butterfield F. *The Pentagon Papers: The Secret History of the Vietnam War*. New York: Bantam; 1971. (2) Hendrickson P. *The Living and the Dead: Robert McNamara and the Five Lives of a Lost War*. New York: Alfred A Knopf; 1996. (3) McMaster HR. *Dereliction of Duty: Lyndon Johnson, Robert McNamara, the Joint Chiefs of Staff, and the Lies that Led to Vietnam*. New York: HarperCollins; 1997. (4) Sheehan N. *A Bright Shining Lie: John Paul Vann and America in Vietnam*. New York: Random House; 1988: 353–371. (5) Andradé D, Conroy K. The secret side of the Tonkin Gulf Incident. *Naval History*. Jul–Aug 1999;13(4):27–32. (6) Kinnard D. *The War Managers*. New York: Da Capo Press; 1991: 69,72–75.

unately for the Americans, the deceit that had become endemic in their own government and armed forces in the years leading up to Tet 1968 made the public skeptical of reports of the American victory (Exhibit 6-2).

Within an armed force, square dealing and honesty foster the growth of the trust that makes cohesion possible. But honesty is not simple. The US soldiers who organized the Hamlet Evaluation Survey and the North Vietnamese soldiers who made unrealistically optimistic reports were not necessarily dishonorable men. The ethical values embodied in both of their military cultures defined reassuring superiors as obligatory behavior. Reassuring others is often virtuous, but when it includes imparting false information up the chain of decision making, it becomes unethical because it does not work.<sup>9</sup> Reassuring others becomes morally virtuous when it is based on accurate information—it is the basis for the trust from which cohesion emerges.

### *Integrity and Cohesion*

There are two kinds of cohesion—horizontal and vertical. Horizontal cohesion is the product of bonding among junior military personnel who come to believe they can depend on their comrades to do their jobs competently, to carry their shares of the burdens, and to watch each other's backs. There is no room for deception among the members of a rifle squad, a gun section, or the crew of an aircraft. Their interdependence involves life and death in combat. A team member who shades the truth is a menace to his comrades and will find himself extruded (forced out of the group). He may, in fact, for administrative reasons remain with his comrades physically, but no one will trust him or confide in him.

Vertical cohesion is the complex process that links primary groups to larger units and ultimately to the armed force and the nation. It begins with members of primary groups learning that they can trust leaders at the next higher echelon to command competently, to do everything possible to assure their success and survival, to not abandon them on the battlefield, and to send or lead them on honorable missions. Leaders who behave competently, tell the truth, keep their word, and take care of their troops earn trust and build vertical cohesion. This is not easy. Sometimes it may appear to be easier and more appropriate to withhold information from subordinates or even lie to them. Leaders who yield to this temptation lose their believability and compromise vertical cohesion in their units.

### *Integrity and Institutional Self-Examination*

One of the most useful aspects of integrity in an armed force is that it makes it possible for its members to look objectively at themselves, their policies, and their performance. For a military organization to maintain its effectiveness during a time of rapid technological change it must be receptive to factual feedback so that it can stay in an active learning posture. Armed forces have a reputation for conservatism, for failing to integrate the lessons of experience with evolving political and technological developments. There have been two historical exceptions—the Israeli Defence Forces (IDF) and the German *Wehrmacht* of 1933 to December 1941 (Exhibit 6-3). These forces valued truth in reporting, accepted and made profitable use of bad news, and created a climate of support for commanders that made them feel sufficiently secure to report shortcomings in their units. As a consequence the high command and subordinate commanders were able to work together realistically to enhance the capabilities of their armies. These two armies repeatedly defeated adversaries superior in numbers and materiel.

A third army, that of the United States, may join the pre-1942 *Wehrmacht* and the IDF as an active learning organization if former US Army chief of staff General Gordon Sullivan's policies persist. Sullivan saw the US Army in the mid-1990s as living and thriving in a state of perpetual change.<sup>10</sup> Whether the US Army can fulfill General Sullivan's vision depends on the degree to which his successors can integrate integrity into its ways of conducting its business. Integrity has been in short supply since the 40-fold expansion of the US Army in World War II, but a renaissance is in progress.<sup>11</sup>

The first event in the rebirth of the US Army took place in 1970 when the Army War College *Study on Military Professionalism* revealed the extent to which integrity had been supplanted by careerism and "looking good."<sup>12,13(p116)</sup> General Westmoreland found these data to be uncongenial, and suppressed the report for 13 years.<sup>14(p112)</sup> Suppressing facts that did not "look good" reflected the lack of integrity that permeated the military culture since the 1940s. But the authors of the *Study* stood for integrity against the culture, and they were the wave of the future.

In 1979 General Edward C. Meyer became chief of staff of the US Army. Meyer was the first chief of staff who had not served in World War II. He began the process of breaking free from the values that had evolved in the 1940s. One of his acts was to tell one of the authors of the *Study*, Walter Ulmer (by

## EXHIBIT 6-3

### THE WEHRMACHT OF 1933 TO 1942

Although there exists a stereotype that Germans, and particularly German soldiers, are compliant and unquestioning in their obedience to orders, the facts since 1813 do not support this view. The defining characteristic of the German Army since the early 19th century was a commitment by each officer to develop, mentor, and support his subordinates.<sup>1,2</sup> Junior officers trusted their superiors and knew they could safely ask for help and advice; seniors expected their junior leaders to use their initiative and were prepared to back them up. As a consequence, during the wars of the 19th and 20th centuries, junior officers were quick to seize and exploit opportunities. The *Wehrmacht* was created in great haste in 1933 (after Hitler became Chancellor) and grew rapidly until 1939 when it was committed to the invasion of Poland in September. With a force of 1,250,000 men and 2,800 small tanks,<sup>3(pp19ff,61,90ff)</sup> it defeated the 600,000 man Polish Army in 35 days at the modest cost of 8,082 German dead.<sup>4,5(p120)</sup>

Immediately upon completion of the campaign, the German high command, the *Wehrmacht*, called on subordinate commanders to criticize the policies, tactics, equipment, training, and organization prescribed by the general staff, and the competence, energy, and performance of their own units. The climate of mutual trust enabled the officers to give frank and open replies that were the basis for an energetic reformation of the German Army.<sup>5(pp130–135),6</sup> This reformation was sufficiently effective to enable the *Wehrmacht* to defeat the armies of France, Great Britain, Belgium, and the Netherlands—with a combined strength 50% greater than the *Wehrmacht* and numerical and qualitative superiority in tanks, artillery, aircraft, and fortifications—in 47 days (10 May–25 June 1940) at a cost of just over 27,000 German dead.<sup>7(pp313–314)</sup>

The *Wehrmacht* went on to conquer Yugoslavia, Greece, and most of Russia in 1 year. It required the combined efforts of the Soviet Union, the United States, and the British Empire, with a total population and industrial capacity seven-fold that of Germany, to finally defeat an army in which trust and honesty had been its strongest assets. To be sure, other factors vitiated the psychological strength of the *Wehrmacht*. Most important was a political climate pervaded by suspicion. Adolf Hitler did not trust his military leaders, and kept them under surveillance. After his army was halted before Moscow in December 1941, Hitler took personal control of the armed forces, refused his generals the right to maneuver, and insisted on slavish obedience to hold every inch of ground seized. Coupled with the inexorable growth in military strength of its opponents, the German armed forces collapsed.<sup>8</sup>

Sources: (1) Nelson JT II. *Auftragstaktik: A case for decentralized battle. Parameters*. Sept 1987;17(9):22–27. (2) Mathews LJ. The overcontrolling leader. *Army*. Apr 1996;46(4):31–36. (3) Chamberlain P., Doyle HL, Jentx TL. *Encyclopedia of German Tanks of World War II*. New York: Arco; 1978: 19–20, 28–31, 58–61, 90–91. (4) US Department of the Army. *Early Campaigns of World War II*. West Point, NY: US Military Academy; 1951: 1–21. (5) Kennedy RM. *The German Campaign in Poland (1939)*. Washington, DC: US Government Printing Office; 1956. Department of the Army Pamphlet 20-255. (6) Murray W. The German response to victory in Poland: A case study in professionalism. *Armed Forces & Society*. 1980;7(2):285–298. (7) Taylor T. *The March of Conquest: The German Victories in Western Europe—1940*. New York: Simon and Schuster; 1958. (8) Goerlitz W. Battershaw B, trans. *History of the German General Staff 1657–1945*. New York: Praeger; 1959: 406.

then a lieutenant general commanding III Corps), to organize a center for leadership excellence, and to report directly to him. He promoted to four-star rank several younger officers who had been battalion commanders during the Vietnam War. These men initiated a number of reforms (Exhibit 6-4) in human dimensions—the ways in which people treat each other—some of which gave integrity a chance to prosper in the American military culture.

The reform movement made rapid strides and produced the superb army that carried out Operation Just Cause<sup>14</sup> and Operation Desert Storm.<sup>15</sup> General Sullivan carried the movement forward and added the dimension of living with change. But in-

terviews this author conducted in the mid-1990s indicated that the movement has lost momentum as a result of the anxiety generated by downsizing and as a result of inadequate funding.

It is important that integrity thrive. Without it honor is a platitude, trust is impossible, and cohesion a chimera. It is a mistake to assume that digitized information exchange can supplant integrity in reporting. In the first place, electronic communications often fail, and in the second place, much of the information shared by digitized systems is put into the systems by humans. Behaving with integrity is not easy; putting duty first is a never-ending exercise in moral courage. Because integrity is an



operationally essential value in a military culture, it is incumbent on the culture to arrange its contingencies of reinforcement to reward and protect those who behave with integrity.

Because integrity is a totally human dimension of military effectiveness, it requires thousands of individual decisions each day. Similarly, taking care of one's subordinates requires thousands of decisions. Together these decisions, many of them difficult, constitute the honor of a military institution.

### Taking Care of Subordinates

The most consistent value expressed in the regulations that have governed the US Army for more than 220 years is the obligation of leaders to attend to the personal, professional, and familial welfare of their subordinates.<sup>16</sup> Taking care of subordinates is a crucial component of honor for the same reason that integrity is—it works. The actions a leader

takes on behalf of his subordinates' personal welfare build trust, solidify vertical cohesion, and free the service member to focus on developing his competence as a soldier. The professional welfare of military personnel comprises all aspects of training, military schooling, civilian education, and preparing subordinates for advancement. There is an obvious direct connection between subordinates' professional welfare and the efficiency of the unit. The linkage between the service member, the unit, and the family has emerged as crucial to operational readiness as the percentage of married soldiers has increased rapidly in the professional force. Attention to the welfare of subordinates is not a luxury; it is an essential element of military honor. It is part of the leader's obligation to his personnel to keep them focused on developing their competence to fight and to survive.

Though the duty of leaders to attend to their subordinates' welfare has been a part of US Army regu-

#### EXHIBIT 6-4

#### REFORMS IN THE HUMAN DIMENSIONS OF THE US ARMY

Many US military leaders pay lip service to the importance of the individual soldier, the soldier's family, and the attitudes soldiers and their families have toward the US Army. Then the same leaders reduce funding of programs or withdraw emphasis from behavior that reflects respect for soldiers and their families. General Meyer and his reformers enacted a series of changes in these human dimensions between 1979 and 1989 that made it safer to tell the truth, to be interested in military matters, and to trust one's comrades and superiors.

##### Training

**National Training Center:** Highly realistic force-on-force exercises in which lasers indicate hits by individual, crew-served, and vehicle-mounted weapons.

**Individual training:** Pictorial soldiers' manuals suited to self-paced training and to soldiers teaching each other.

**Noncommissioned Officer (NCO) Educational System:** A series of four progressively more advanced professional schools (Primary Leadership Development Course, Basic Noncommissioned Officer Course, Advanced Noncommissioned Officer Course, and the Sergeant Majors Academy) for aspirants to successive NCO grades.

##### Unit Manning

**COHORT (COHesion, Organization Readiness, and Training) System:** Soldiers stay together through basic and advanced training and in the same battalion for the three years of their enlistments.

##### Leadership

**Command tours:** 18 months for company commanders; 2 years for higher commands.

**Relationships across ranks:** Respect, trust, open communications, empowerment of subordinates.

**Competence:** Driven by subordinates' demands for more challenging experiences.

##### Family Support

**Army Family Support Command:** Organization and coordination of resources for families.

**Family Support Groups:** Link unit, soldier, and family in a mutually supportive structure.

lations since the 1770s, it has often been ignored or misunderstood. During the 19th century many commanders despised their subordinates.<sup>17</sup> Some commanders were honored because of their indifference to casualties. For example, commanders during the Civil War often favored subordinates whose units had sustained heavy casualties over those who spared their troops—irrespective of the tactical achievements of the units. The rationale was that if a commander could keep his unit fighting in spite of casualties, he was an effective leader. This notion continued into World War I during which it was reinforced by French and British values.<sup>18</sup> There were still some US commanders in World War II and Korea who believed in spending lives without a backward look.<sup>19</sup>

During the 20th century certain military personnel policies derived from the larger culture were adopted in the name of efficiency or fairness. These policies were based on ethical considerations but were, in fact, deleterious to the welfare of junior personnel. Frederick Taylor's ideas about personnel being interchangeable was the basis for an individual replacement system in World War I in which people were treated as spare parts for the military machine.<sup>20</sup> Individual equity was the basis for the World War II policy of rotating men from combat zones on the basis of points they earned as individuals for time overseas, wounds, and awards.<sup>21</sup> Concern over protecting soldiers from combat stress breakdown led to fixed-length tours during the Korean War.<sup>22,23(pp49–50)</sup> To assure equality of opportunity for military professionals command tours were limited to 6 months during the Vietnam War.<sup>24,25</sup> The ethical foundations of these policies were sound in an abstract sense, but all proved to be inappropriate for the military situations to which they were applied. Individual replacement, fixed-length tours, and short command assignments damaged the combat competence of units and the ability of military personnel to resist combat stress.<sup>23(p54),26</sup> Rotating soldiers in and out of units on an individual basis kept those units from developing the proficiency and teamwork that would have made them effective in protecting the lives of their members. Individual replacement and rotation policies denied soldiers the social supports of prolonged association during and after combat with others they knew. These policies were unethical from a military perspective because they did not work.

The reforms initiated in the US Army in the 1980s went beyond the traditional concepts of welfare that had focused on minimizing subordinates' distress

and providing some basic comforts. They included a renewed emphasis on helping service members to become more effective soldiers, and a comprehensive program to include familial welfare as part of command responsibilities. This was a complex business. More intensive and realistic training strengthened their subordinates' professional abilities, confidence, and pride; but also increased their fatigue, pain, and misery, and put additional strain on their relationships with their families. Integrating families with units, and providing support for family members, required new skills and sensitivities of leaders. Both of these developments put additional demands on leaders' integrity and devotion to duty. Honorable behavior on the part of the leader with respect to taking care of his subordinates involves five principal spheres of action: (1) competent leadership, (2) developing subordinates' competence, (3) administrative and logistical support, (4) caring for families, and (5) balancing the mission against troops' welfare.

### *Competent Leadership*

The ground force commander's first obligation to his subordinates is to lead them intelligently. Honor requires that he be technically competent with respect to combat operations such as tactics, fire support, and gunnery; to field craft such as camouflage, field fortifications, and stealthy movement; to health issues such as field sanitation, first aid, protection against vermin, and climatic adaptation; and to logistical support such as field messing, aerial resupply, and combat evacuation. The competencies required in the US Navy and US Air Force differ in specifics, but the principle is the same. The leader's task is to lead his people into the valley of the shadow of death and out the other side, having accomplished the mission on the way. Honor demands that he spare no effort to become competent, and that his superiors spare no effort to develop his competence.

One of the reasons that US ground forces performed poorly in many cases in the wars in Korea and Vietnam was that thinking and talking about technical military matters were unfashionable in many parts of the US Army for several decades following World War II.<sup>7</sup> The author knew many field grade officers during the late 1950s and early 1960s who prided themselves on avoiding involvement with such basic technical topics as the siting of machine guns, the effects of weather on the trajectories of artillery shells, and the lubrication and adjustment of the mechanical parts of vehicles and

weapons. They were, perhaps, copying the contemporary civilian managerial model of being “generalists,” and leaving the technical details to underlings. Or perhaps they were intimidated by the growing complexity of military technique and technology. Whatever the cause for their withdrawing from the details of their profession, these same officers were brigade and battalion commanders and S-3s (operations and training officers) in Vietnam. Knowing little about the technical aspects of their profession they were unable to supervise the training and performance of their subordinates. Exhibit 6-5 summarizes three not atypical cases from the author’s experience.

For a commander of troops in combat to be professionally incompetent is a dishonorable betrayal of his subordinates. Similarly, for a senior com-

mander or personnel management official to assign an incompetent person to such a command is dishonorable. Troops cannot repose trust and confidence in a leader who does not know what to do, so vertical cohesion becomes impossible. The solution is to build an ethic of commitment to one’s subordinate leaders’ success, a solution that demands technical and tactical competence at all echelons of leadership.

### *Developing Subordinates’ Competence*

Developing subordinates’ competence is as much a matter of honor as the leader’s own competence. Being an effective trainer entails personal exposure to risk, uncertainty, and discomfort. As long as war is a component of the cultural repertory of a nation

## **EXHIBIT 6-5**

### **EFFECTS OF COMMANDERS’ TECHNICAL INCOMPETENCE**

The following three examples all occurred in Vietnam in the months prior to Tet 1968, and demonstrate the critical importance of commanders’ technical knowledge when it comes to mission completion and the safety of their troops.

**Example 1:** One division artillery commander in Vietnam told a newly arrived field grade officer never to allow troops in his battalion to fire shells that landed on friendly troops or villages. Yet this commander, whose prior experience in the field artillery consisted of several years in public relations, was oblivious of the fact that there was neither the know-how nor the equipment for meteorological data correction in any of the battalions under his command, and that all of the battalions in his command had dismantled their topographical survey sections. He was commanding a force that had eliminated two of the most useful techniques for controlling the trajectories of artillery shells by making adjustments for the effects of weather and by locating the distance and direction from the battery to the target exactly. Fire inevitably fell on friendly forces and villages, sometimes with civilian casualties. He was adamant that someone be held responsible, although oftentimes no one was at fault. All he understood was that his general did not want friendly fire incidents; he had no idea how to prevent them other than to prohibit them. The incidents continued, the commander completed his tour, and was decorated for heroism and for meritorious achievement.

**Example 2:** An infantry battalion commander in the same division in Vietnam whose companies were defending a firebase said that, “No one could live through the wall of steel” his troops would put up against anyone attacking the base. One night the base was attacked, and air observers reported that all of the infantrymen’s fire was going up into the sky, not parallel to the ground where it would hit enemy soldiers. The battalion commander had authorized the turn-in of the tripod mounts with their traversing and elevating mechanisms for machine guns unaware that they are essential for stable, grazing fire from defensive positions. He had believed that doing this would “lighten the load” of his men. His men, firing their weapons from the shoulder while crouching in their holes, could only send bullets into the sky. Fortunately the attacking force was few in number; otherwise the firebase probably would have been overrun.

**Example 3:** An officer commanding an artillery battalion in another division in Vietnam told the author that he never used more than one, rather than all, of his 18 guns when firing on the enemy because he feared being relieved for hitting a village or friendly troops, and he did not know how to control the fires of more than one gun. Infantrymen he supported counted on him to fire his whole battalion at enemy forces, and they died because the fires from his battalion did not send fragments flying wherever the enemy troops were hiding. The commander completed his tour without arousing criticism.

the honorable path is to train realistically. Training for ground combat troops and for crews of ships and aircraft must be challenging, grueling, and state-dependent. The latter term means that if the skills and techniques learned are to be available in combat or other crisis, those skills must be acquired in an emotional climate similar to combat or crisis.

Such training is dangerous and expensive, and it poses an ethical dilemma. The more realistic the training the more likely it is that trainees will be injured or killed. Honor requires that commanders accept the danger and expense. Cutting corners on realism results in diminished practical skill, emotional steadiness, and confidence in battle. An instructor or a leader training his subordinates has to be with the trainees and experience the risk and discomfort of the training situation. He also is at risk because of his responsibility for his troops. Accepting responsibility for training risks is yet another example of putting duty before personal interests.

Commanders are appropriately held accountable for deaths or injuries that occur during training. In response they have, again appropriately, sought to minimize the likelihood of such accidents. The most effective way of obviating training accidents is to eliminate gunfire, minimize the use of motor vehicles, never train at night—in short, to water down training experiences to the point that they bear no resemblance to combat. This is unethical, but if the contingencies of reinforcement are such that commanders know that a training casualty will end their careers, then it is the senior policy maker, not the training commander, who is guilty of unethical conduct.

Most commanders use safety officers in any exercise involving gunfire. Safety officers are not to concern themselves with the accuracy, speed, or tactical validity of gunfire; they are to focus exclusively on seeing that no bullet or shell is fired that will endanger anyone. On the face of it this is a wise and ethical measure. However, it has often evolved in practice into placing the blame for any mistake made by members of the unit undergoing training on the safety officer—usually the junior officer in the unit or a junior officer borrowed from another unit. One of the most honorable officers known to the author was an infantry battalion commander who routinely took his troops through live-fire exercises in demanding settings. He declared, “I am the safety officer for all live fire.” He could not, of course, perform the duties of all the safety officers required for his training programs, but he could and did accept the responsibility. By his example he inspired his subordinate leaders to adopt the same ethical posture.

### *Administrative and Logistical Support*

The leader’s duty to attend to his subordinates’ welfare entails administrative and logistical as well as combat action. To spare his subordinates anxiety in garrison as well as on campaign the ethical commander trains, organizes, and arranges for the supervision of the staff sections that administer pay, leave, and personnel actions; that provide lodging, food, water, and clothing; that repair and maintain equipment; and that treat the sick and injured. Some members of support elements often develop sub-cultural values based on their perception that their routines are important in and of themselves, and that serving soldiers’ needs is an irritating intrusion. Leaders of administrative and maintenance units have the difficult job of making the efficient performance of clerical and mechanical jobs a matter of honor. The approach that seems to work best is to reward professionalism and competence, to give clerks and mechanics ownership of the mission and opportunities to see how their efforts affect the efficiency of their supported units, and to devote special attention to their personal, professional, and familial welfare. Commanders of line units, for their part, have a duty to insist on first-rate performance by service troops.

### *Caring for Families*

One of the most difficult tasks facing leaders and commanders is taking care of the families of the personnel in their units. Family members with a sense of belonging to the unit and a belief that its leaders will take care of them as well as the service member enhance the efficiency of the unit in three ways. First, family members who feel they are part of the unit are more willing to share the service member’s time and energy with the unit. Second, family members who use the resources of the unit to help them cope do not distract the service member by making him anxious about his family. Third, families who feel supported by the unit are likely to take pleasure from the achievements of the unit and encourage the service member in his professional activities. A family whose members feel integrated with the unit is a combat multiplier.<sup>27</sup>

Frequently junior personnel marry and the couples have children with little understanding of child care, household maintenance, and financial management. Families that cannot cope can become sources of extreme anxiety for service members. This anxiety can distract the service member from training, and the unit can become the focus for hos-



tility engendered by the stress in the family. When a service member deploys for a protracted period, particularly to a dangerous situation, the spouse's anxieties can lead to maladaptive behavior. This is especially likely when senior command gratuitously withholds information from spouses about the purpose and duration of the deployment. When a spouse loses control and the service member learns about it, he can be overcome with helpless anxiety, and become ineffective.

On the other hand, family members who trust the service member's leaders to take care of him, and who have learned to cope on their own and with the help of the military, can enhance his effectiveness. Such a family sends the service member off to work each day, and off on deployment, feeling confident that the family approves of what he is doing and can take care of itself. The ways to generate trust in a family are to open communications, to treat the family members with trust and respect, and to tell them the truth. Fortunately, these are the same values and leadership behavior that build morale and cohesion among service members.<sup>27</sup> Family support groups have proved to be useful to both families and units. Preconditions for their success are that they be organized on a democratic basis rather than in accordance with the service members' ranks, and that the command support their

activities with funds, facilities, information, and respect.<sup>28</sup> Exhibit 6-6, from the author's field notes from Panama, illustrates two approaches to handling information flow to families.

There is therefore nothing arcane about the process of looking after families; treating them in an honorable manner with the respect appropriate to members of the military community is usually effective.

### *Balancing the Mission Against Troops' Welfare*

There are times when there are conflicts between two actions, both of which are honorable but which are incompatible. The following is an example known to the author. During a large-scale maneuver in the mid-1980s, a division commander required battalion commanders to justify in writing each man who did not participate in the maneuver. Brigade commanders imposed yet more stringent requirements in an effort to look the toughest. Battalion commanders and their staffs had too many demands on them to write the justifications for leaving anyone behind, so they took men on a 3-week field exercise with limbs in casts, with injuries that would certainly be exacerbated by duty in the field, with wives (who also had other children at home) within a week of delivering babies, and with completed elimination actions awaiting only discharge orders.

#### **EXHIBIT 6-6**

#### **INFORMATION FOR FAMILIES—OPERATION JUST CAUSE**

The deployment for Operation Just Cause, the invasion of Panama in December 1989, was organized under conditions of great haste and secrecy to prevent the Panamanian dictator from preparing his defense forces. Personnel were told to report to their units, then forbidden contact with their spouses. From initial notification to their landing in Panama by parachute or aircraft took less than 24 hours in some units.

In one division, headquarters personnel refused to provide spouses any information about their soldiers for 3 days, even though the media were reporting on the events. Thus the spouses learned what was going on from television news broadcasts, rather than from command. Those spouses felt betrayed and alienated from command 3 months later when the units returned.

In another division the commanding general, assistant division commander, and chief of staff took turns answering spouses' questions authoritatively. They did not divulge information that might endanger the soldiers, but they told what they could, explained why they had to be reticent on some subjects, and promised more complete information as soon as it was safe. They published newsletters daily, they and their spouses went to meet with family support groups, and they energized the post administrative services to make themselves available to the spouses. The one battalion from this division was in the heaviest fighting, took the worst casualties, and its members trusted their commanders. Though some soldiers left the US Army, those who remained had confidence in command and were ready for another deployment.

Source: Kirkland FR, Ender MG. Analysis of Interview Data from Operation Just Cause. Washington, DC: working paper available from Department of Military Psychiatry, Walter Reed Army Institute of Research: June 1991.

The conflict between the honorable goal of putting duty first conflicted with the honorable goal of taking care of the troops. There need not have been a conflict. Common sense would have excluded some soldiers from participation. But the military culture had two components that overrode common sense. The first component was distrust of subordinate commanders.<sup>29(pp33,84–90)</sup> This led to the requirement for a justification in writing.

The second component is the pervasive “can-do” ethic that emerged in the late stages of World War II—“The difficult we do immediately, the impossible takes a little longer.” This sort of slogan can build morale in service support units (such as US Navy rear area construction battalions—where it originated), but it does not work with commanders of professional combat units.<sup>13(p164)</sup> It leads to inadequate resources, crushed morale, and broken careers for the honorable few who stand up and say, “That is not possible.”

In the culture of fear that pervaded the US Army after World War II, many career officers became progressively more reluctant to resist the imposition of an unreasonable requirement.<sup>12,30,31</sup> The “can-do” ethic has led senior commanders to accept without question any requirement that comes out of Congress or the Pentagon, and to impose it on the units that do the work. The culture of the US Army into the 1980s was one in which habitual demand overload was the way of life.<sup>29(pp72–74),30</sup> Company commanders had the job of deciding which demands to ignore and which to fulfill, because their superiors did not have the moral fortitude to set priorities and reject requirements that were inappropriate for their subordinate units.

Returning to our discussion of the division that took men with broken limbs to the field, the junior personnel in the division knew that soldiers were being mistreated. They saw this as proof that their senior officers lacked moral courage. They were being asked to give their all to build the reputations of men who were not sufficiently honorable to use common sense. The wrongdoing quickly became known throughout the battalions, and the soldiers were caught between their professional pride and the knowledge that they could not trust their officers to take care of them. Some acted out their resentment during the 3-week exercise in ways that, appropriately, embarrassed their commanders. For instance, sometimes units would “disappear,” sometimes soldiers would stand in the open and laugh at their “attackers,” or ignore them. Commanders could do nothing about it at the time and later was too late.

During the exercise one brigade commander demonstrated that honor was not dead in the division when he learned from his rear detachment commander that one young mother had fallen seriously ill. The colonel sent his helicopter to fetch her spouse, a private, from the exercise and send him to stay with his wife and look after their children. Just as the morally querulous conduct of other officers was known throughout the division, word of this colonel’s actions spread rapidly. He earned substantial credibility with junior personnel. However, he had to contend with the jealousy of colleagues who accused him of posturing to his troops. Thus although he had behaved in an honorable manner, he was charged with a dishonorable motive by many of his peers.

### **Perversions of Honor**

There have been examples in the foregoing discussion of honorable and dishonorable behavior. It is usually possible to discern which is which. More insidious are situations in which the term “honor” is used to cloak dishonorable, or at least incompetent, conduct, as the following example demonstrates.

In July 1915 the French Commander-in-Chief, General Joseph Joffre, was putting pressure on the commander of the British Expeditionary Force, Field Marshal Sir John French, to mount an attack toward Loos over a broad expanse of flat, open terrain into the teeth of well-constructed, heavily armed, and forewarned German defenses. General Joffre had a fantasy of ending the war with one great offensive. He said that the British would find “particularly favorable ground” in the vicinity of Loos—an outright lie. Sir John French was afraid that if he did not go along with Joffre, the latter would arrange through his government to have him dismissed. When Joffre could no longer deny the unfavorable nature of the ground, he said the attack was vital “to the honor ... of the Allied cause.”<sup>32(p126)</sup>

That the term honor was used in this way says a great deal about the perversions of that concept in the French and British armies in the first half of the 20th century. French and British senior officers habitually lied to each other, to their allies, and to their subordinates.<sup>32,33(pp82ff,92ff)</sup> They falsified reports, took council of their own ambitions to the detriment of their troops and their cause, dismissed juniors who were so unwise as to offer suggestions that proved to be correct, and were professionally incompetent to a degree that is hard to imagine.<sup>32,33(pp80–109)</sup> They used “honor” as a bastion behind which to refuse

**EXHIBIT 6-7****IS THE UNIT THE TEAM, OR IS THE OFFICER CORPS THE TEAM?**

This exhibit describes two cases known to the author of leaders who were punished for not being team players.

**Case 1:** During the 1970s, the commanding general and command sergeant major of an Army reserve command stated that they sought to demonstrate their dissatisfaction with the quality of the Active Army personnel assigned to the command. Their motivation remains obscure, but their plan was to summarily eliminate from the service a Filipino NCO from the Active Army who had failed in his primary military occupational specialty (MOS) and was on a rehabilitation assignment after being retrained as a supply sergeant. The reserve command staff assigned him to a combat support company, expecting him to fail in his new specialty and thereby give them a pretext for firing him. The company commander immediately had problems with supply. His new sergeant had only instructional knowledge of supply procedures and no practical experience. He was also limited in his mastery of the English language. He failed inspections, was late with reports, and did not fully understand procedures. The captain complained up the chain of command and was told to work with the sergeant. He did, and was making progress when the sergeant major of the reserve command told him to initiate elimination action quickly. If the sergeant had enough time in service he would be entitled to a hearing before a board of officers, and those who wanted to fire him would have to prepare a case that could withstand cross-examination. If the captain put an elimination dossier together quickly the sergeant could be discharged administratively without appeals. The captain said the sergeant was performing better and that elimination was inappropriate. The next day the captain received an order from his battalion commander to initiate the elimination proceedings. He did as he was told, but in his evaluation of the sergeant he used language that made it clear that his performance did not warrant elimination. This stopped the general's manifestly dishonorable project. The general then directed the captain's battalion and group commanders to relieve him from command, to give him an adverse efficiency report (which effectively ended the captain's military career), and to organize a high-ranking team to conduct a change of command property inventory. The team left the captain with a \$25,000 report of survey, for which he was held pecuniarily liable. The captain resigned from the US Army, his troops believed he was treated shabbily but they had their own investments in the unit, and the supply sergeant stayed in the US Army. The entire chain of command, who were dependent on the general for good reports, loyally supported the general's unethical conduct.

**Case 2:** In 1967 in Vietnam, a draftee private in a direct support artillery battalion was serving as a fire support team chief for a rifle company. He was adjusting artillery and mortar fire for his company—doing the jobs of a lieutenant and a staff sergeant—and he was doing well. The infantrymen trusted him. One day he got a letter from a friend at home that said his mother, who owned the trailer in which his wife and daughter were living, had thrown the young family out and sold the trailer. The friend did not know where the soldier's wife and little girl were. The soldier was distraught. He wanted leave to go find his family and resettle them. His first sergeant sent him to the Red Cross, which refused to authorize an emergency leave because no one was in a health crisis. The battalion executive officer (XO) learned of the problem and sent the soldier to the chaplain to get authorization for a morale leave. The chaplain called the XO and said, "This kid has a serious problem. If we send him home, he may not come back. Then whoever authorized his leave will look like an ass, and it isn't going to be me." The XO was furious at the chaplain for dodging his responsibility, and stormed into the division personnel office and asked the officer in charge to cut orders for a 30-day morale leave, which he did. At the end of his 30-day leave, the soldier did not return. His superiors questioned the XO's judgment. A week later the soldier returned. He had found his family, gotten them a place to live, and was ready to go back to work adjusting fire for his infantrymen. The soldier, thanks to his intelligence and hard work, was able to carry out an officer's responsibilities—but not when he was obsessed with worry about his family. The mission required that he have his mind on his job, so the XO took action to get the distraction resolved. The XO got an adverse efficiency report, the chaplain got a favorable report, and the private was a sergeant when he came home. There was no observable effect on the unit, but the XO acted honorably in a dishonorable culture, and paid the price. Ultimately, in such a climate there will be fewer and fewer honorable soldiers. This incident illustrates the danger of acting honorably in a dishonorable culture, and how the nominal stewards of moral values can be corrupted by the culture.

to accept criticism of their actions and as an alternative to knowing what to do.

Honor is therefore a concept of which military personnel in the 21st century must be wary; it has

been used as a cover for incompetence, failure, and atrocities. A commander saying, "We don't want to let anyone know about this, it would tarnish the honor of the brigade" really means "If this gets out

I will be relieved, so help me cover it up or I'll cut your throat on your efficiency report."

Loyalty is often put forth as one of the key aspects of honor. Correctly construed as taking care of one's subordinates, and of carrying out missions faithfully, loyalty is important. But in the US armed forces since 1945 it has more often been construed as a duty owed by subordinates to superiors—including a duty to cover up their superiors' mistakes, incompetence, and even criminal behavior (Exhibit 6-7). Failure in this type of "loyalty" marks the individual as "not a team player," and usually leads to a damaging evaluation.<sup>5(pp225ff,294ff),34</sup>

Operationally effective honor rooted in integrity, trust, commitment to duty, and care for subordinates is a powerful support for military personnel who must perform emotionally aversive acts to accomplish a mission, and who must make difficult ethical decisions in the midst of danger, privation, and moral chaos. Each honorable act strengthens

the character of the individual who performs it, and strengthens the culture of the unit to which that individual belongs. Honor flourishes in a command climate that fosters a sense of security, especially among leaders. Conversely, threats, statistical measurements, competition, and covering up for superiors create the insecurity that undermines honor. If people are sufficiently insecure, they will slip away from the honorable course. As Edgar Z. Friedenberg (a psychologist who focused on how school faculties colluded to keep adolescents in the social and economic classes into which they had been born) put it, "All weakness tends to corrupt; impotence corrupts absolutely."<sup>35</sup> Trust, respect for subordinates, and empowerment, on the other hand, create a sense of security, belonging, and willingness to do the honorable thing. American military personnel tend to be idealists; it is the job of senior leaders to create a culture in which that tendency can blossom into ethical and operationally effective behavior.<sup>36</sup>

## COMBAT ETHICS

There are three essential military purposes served by an ethical system in combat: (1) restraining military personnel from committing atrocities, (2) enabling people to carry out missions that may require them to kill and perform other morally aversive acts, and (3) strengthening resistance to combat stress breakdown.

### **Restraining Military Personnel From Committing Atrocities**

Atrocities are violations by soldiers of the standards of behavior valued in their cultures, consonant with national objectives, and prescribed by military regulations. Behavior considered from one cultural perspective might be called an atrocity; the same behavior in another cultural context could be considered a moral duty. I am presenting this as both a practical and a moral issue, because to do less is to disregard its complexity and do a disservice to the leaders and fighters who have to make moral judgments on the field of battle.

There are three ethical-operational issues to consider: (1) the process of defining an atrocity, (2) the dynamics of atrocious behavior, and (3) ways of preventing atrocities.

### ***National Objectives, Military Culture, and Atrocities***

During the 20th century, definitions of appropriate conduct during wartime have varied radically.

The objectives of a particular war tend to be the primary factors governing definitions of ethical as compared to unethical behavior. In World War I, German and American views of what constituted lawful attacks on merchant vessels, especially by submarines, differed so widely that the issue became one of the key factors bringing the United States into the war. The US firebombing of Dresden and the US use of nuclear weapons against two Japanese cities have been the subjects of many years of ethical debate. German soldiers were barbarous in their treatment of civilians during the invasion of Russia between 1941 and 1944, but their conduct was consonant with national objectives and Nazi cultural values (Exhibit 6-8). Having no clear war aim was a major problem for US military personnel during the Vietnam War. They were reduced to adopting the killing of North Vietnamese soldiers as the ethical purpose of the war. In the Bosnian conflicts of the 1990s, raping the women and killing the men of conquered populations were consonant with the war aims of all three conflicting parties. Muslims, Croatian Roman Catholics, and Serbian Eastern Orthodox Christians were committed to the extermination of opposing ethnic groups.

Another example of behavior defined by Americans as an atrocity was the Japanese treatment of American and Filipino soldiers during the Bataan Death March (Exhibit 6-9). Americans called this event an atrocity. After winning the war they tried the Japa-



**EXHIBIT 6-8****GERMAN ATROCITIES ON THE RUSSIAN FRONT**

As the Russo–German war (1941–1945) became more severe, German soldiers were beset by extraordinarily harsh conditions, inadequately equipped and supplied for the terrain and weather in Russia, and faced a tenacious and skillful adversary in a war defined as one of survival for Germany.<sup>1(pp21–27)</sup> German soldiers had their humanity put to a severe test. Ethics, cohesion, and the coercive system in the German Army were corrupted by, and subservient to, a harsh Nazi ideology that demeaned Russians. The result was that German soldiers became brutal and rapacious in their treatment of Russian soldiers and civilians. Soldiers of the German Army, not just the SS (*Schutzstaffel* [protection echelon]), were under orders from the high command to kill all guerrillas, saboteurs, political commissars, and Bolshevik agitators; to impose mass punishment on villages suspected of harboring guerrillas; to exploit Russian civilians in any way required to support the war effort; and to destroy everything in the event that they had to give up ground to the enemy.<sup>1(pp106–141)</sup>

The ethical code under which German soldiers had been trained defined non-Germans as subhuman (*untermenschen*) and maltreatment of them as virtuous.<sup>1(pp133–136)</sup> They were authorized and required to be barbarous, and the stress of weather, terrain, privation, and the Russian resistance made them ready to impose hardships on the populace in order to alleviate their own. The ethical code promulgated by the Nazi regime specified that what we would call atrocities were “what was right” for German soldiers on the Russian front.<sup>2</sup>

Sources: (1) Barton O. *The Eastern Front, 1941–45. German Troops and the Barbarization of Warfare*. New York: St. Martin’s Press, 1986. (2) Browning C. *Ordinary Men*. New York: HarperCollins; 1992: 2, 55ff, 74–77, 130–131.

nese commander for war crimes and hanged him.<sup>37</sup> But from the Japanese perspective their treatment of their prisoners was ethically correct.

In the last decade of the 20th century American military and political leaders have adopted new guidelines for ethical behavior by military personnel. Interviews with American soldiers who fought

in Panama in 1989 and in Iraq in 1991 indicate that hatred of the enemy is no longer a goal of training.<sup>38,39</sup> With a different adversary every few months soldiers instead have come to refer to the current opponents as “the other side” or “the bad guys.” Since the mid-1980s, incapacitation of an adversary’s ability to conduct effective military opera-

**EXHIBIT 6-9****THE BATAAN DEATH MARCH**

In the late 19th century, Japanese military leaders recognized that their army was “destined” to fight numerically superior enemies—Chinese, Russians, or Americans. They defined fighting to the death as the only honorable behavior. Surrender was the ultimate loss of honor.<sup>1</sup>

In April 1942 an American and Filipino army of 76,000 surrendered to a Japanese force of 43,000. The Americans and Filipinos had surrendered because they were on the verge of death from starvation. Their commanders had brought them into the Bataan Peninsula 3 months earlier having made no preparations for their subsistence.

Much of the Japanese force in the Philippines was sent on other missions when the Americans surrendered. They had few men with which to guard the prisoners, no transport to move them, and barely had enough food to feed their own men. The prisoners had to walk 55 miles to the nearest railhead. Already near collapse from hunger, they got little food from the Japanese. On the way 12,300 of them died. Some were shot or beaten to death when they fell out of the column.<sup>2</sup> Given the Japanese contempt for warriors who surrender, it is remarkable that they provided any resources at all that allowed any of the prisoners to survive.

Sources: (1) Edgerton RB. *Warriors of the Rising Sun*. New York: Norton; 1997. (2) Whitman JW. Hell broke loose this morning: The first Philippine Campaign, 1941–42. *Command*. May 1997;43:18–29.

tions has replaced annihilation of personnel as the principal tactical objective.<sup>10,39(p125),40,41</sup> American military personnel are prepared to treat vanquished soldiers with compassion and even as allies once their capacity to fight has been neutralized. These changes do not reflect a new and loftier morality; instead they reflect national objectives that foresee future amity with the armed force currently under attack.

For example, postwar friendship was an objective of the US invasion of Panama in 1989.<sup>42,43</sup> This objective was served by minimizing casualties among the opposing forces. To achieve that purpose senior commanders imposed narrowly restrictive rules of engagement that entailed substantial additional risks for US military personnel.<sup>38</sup> (See Chapter 8, Just War Doctrine and the International Law of War for a further discussion of the rules of engagement.) The ethical duty of commanders to protect their troops was subordinated to the national objective.

In the Persian Gulf War in 1991 liberation of Kuwait from Iraqi occupation and elimination of the Iraqi capability to conduct offensive operations were the stated objectives. (Unstated objectives included protecting oil imports as well as other business interests in Kuwait.) To achieve those objectives, US forces targeted military materiel, command and control facilities, and elements of economic and industrial strength. Casualties among both military and civilian Iraqi personnel were minimized.<sup>39(pp111ff,314ff)</sup>

Humane treatment of prisoners of war, sparing the lives of noncombatants, respect for women, children, and the elderly, and protection of artistic and cultural treasures are the usual components of most modern military ethics. The values that dominate in any set of ethical guidance for the military result from a combination of what works in the conduct of military operations and the prevailing values in the larger society that provides the military personnel. In the final analysis, definitions of morality have followed national objectives, and are likely to continue to do so.

### *Dynamics of Atrocities*

Most soldiers do not want to commit criminal acts. However, the definition of criminal acts is culturally determined. The record of history indicates that American soldiers are more likely to succor conquered peoples than to abuse them. They are not imbued with values such as those animating German soldiers toward Russians (see Exhibit 6-8) and

Japanese soldiers toward those who surrendered during World War II (see Exhibit 6-9). Their values make it psychologically painful for American soldiers to abuse the enemy. But they have been known to get out of control and behave in unethical ways.<sup>44</sup>

There are conditions that can increase the propensity of any soldiers to commit atrocities: physical hardship, psychological desperation, and military inadequacy. In addition, individuals may go berserk, or a leader may initiate a chain of events leading to barbarous behavior with an overt or implied order. The German soldiers on the Russian Front were physically and psychologically desperate, and they were under orders to plunder and kill civilians. The Japanese soldiers on Bataan were almost as hungry as their prisoners, and their commanders were under heavy pressure to leave the Philippines for other missions. Sometimes the military situation makes it difficult for soldiers not to behave outrageously.

The dynamics of atrocity are complex. A small proportion of any population are sociopaths who do not have empathy for others and who enjoy killing. However, sociopaths often do not trust others and are unreliable. They tend to gravitate toward isolated roles, such as snipers. (They can be useful, but they complicate cohesion.) Historically, leaders who have wanted to induce ordinary soldiers to engage in barbarism have deceived them about the unethical deeds they were to perform. Having once done something they believed to be wrong, they would be offered an escape from guilt by being praised or accepted into a prestigious group. This process alleviates guilt for a short time; to alleviate it over the longer term requires that the soldiers continue to validate their initial atrocity by performing others and by participating with the group in rituals of justification of their acts. Participants in atrocities need to form strong cohesive bonds with each other because they are dependent on each other for mutual validation. They reassure each other that their behavior demonstrates that they are strong and virtuous and that others are weak.<sup>45(pp208–214)</sup>

Soldiers who have experienced despair, grief, or helplessness, and who have weak social supports in their units, have an intense need to feel effective. They are vulnerable to being recruited to perform atrocities. The potentially most dangerous people are leaders who feel inadequate and insecure. Their sense of helplessness easily turns to hatred and a search for someone or some group on whom they can take vengeance. Incompetence, insecurity, and social isolation increase the likelihood that a leader

## EXHIBIT 6-10

## THE MASSACRE AT MY LAI

Second Lieutenant William Calley, a man of limited ability,<sup>1(pp19–21)</sup> was in over his head<sup>1(pp26,28)</sup> as a platoon leader in the Americal Division in Vietnam in 1968. He led a group of men who had experienced the death and wounding of their comrades by mines and booby traps for many weeks. They never saw the enemy who was killing them, and had no chance to fight back. Calley's company, battalion, brigade, and divisional commanders did not have a clear idea how to conduct effective operations, and as a consequence were frustrated and hostile toward Vietnamese civilians.<sup>1(pp27,33,35)</sup>

Calley received an order that intimidated<sup>1(pp21,44)</sup> that he was to tell his men to "kill every man, woman, child, dog, cat" in My Lai, and he made his platoon carry it out.<sup>2</sup> Many of them did not think it was right, and sought to avoid, or limit, participating in the slaughter. Calley was adamant, and threatened soldiers who hung back. Nonetheless, one shot himself in the foot, at least one other snuck off, and some killed a few Vietnamese, then quit. Several were active participants in the slaughter.

The crew of an American helicopter, commanded by Chief Warrant Officer Hugh C. Thompson, Jr., played a role in stopping the massacre. Thompson landed his helicopter in the line of fire between Calley's soldiers and their intended victims, and rescued 11 of them.<sup>3</sup>

Calley's unit was credited with 128 bodies, some of them infants, but no one raised questions at the time. American and Vietnamese investigators found 450 to 500 bodies. The massacre came to public light when a helicopter door gunner, Ronald L. Ridenhour, left the US Army and started a letter-writing campaign to Congress. There were so many facts that the military eventually had to address the matter, but Calley was the only one who was convicted of criminal action, although four enlisted men were discharged administratively.<sup>4(pp257–267)</sup> His superiors escaped serious punishment but their careers were terminated.<sup>4(pp257–267)</sup>

Calley took the blame, and thus protected his superiors, but he was part of a command that was in ethical collapse. His superiors were guilty of incompetence, of failing to take steps to support the morale and character of the men who were dying because of their incompetence, and of the incomparably cowardly act of suggesting—not ordering—that Calley commit an atrocity.<sup>1</sup> That they knew that they had behaved dishonorably became apparent when evidence of their conspiring to cover up the massacre came to light.<sup>4</sup>

Sources: (1) Hersh SM. *My Lai 4: A Report on the Massacre and its Aftermath*. New York: Random House; 1970. (2) Film, *Interviews with My Lai Veterans*. Washington, DC: SANE. (3) Montgomery D. 30 years later, heroes emerge from shame of My Lai massacre. *Washington Post*. 7 March 1998: A1, A10. (4) Hersh SM. *Cover-up: The Army's Secret Investigation of the Massacre at My Lai 4*. New York: Random House; 1972.

will order, or acquiesce in, criminal acts. A classic example from the Vietnam War is Second Lieutenant William Calley and his platoon at My Lai in 1968 (Exhibit 6-10).

From an operational standpoint, atrocities do not work. They usually redound to the disadvantage of the side committing them. Bombing of population centers in England and Germany in World War II strengthened the resolve of the people being bombed in both countries; the Japanese treatment of prisoners on Bataan gave rise to the slogan "Remember Bataan!" among Americans; maltreatment of one's prisoners of war in any conflict makes one's adversaries more likely to fight to the death. In war any policies or actions that increase the power of the adversary or the danger to friendly troops are unethical irrespective of whether they are inherently repugnant to national moral values.

### Prevention of Atrocities

It is appropriate that governments and commanders take steps to prevent soldiers from running amok. In an era of instant and comprehensive public communications, controlling soldiers' behavior can become an obsession because their behavior has the potential to embarrass governments. Commanders rely on codes of military justice, military police, and summary field courts to compel those who wield armed force to do so only in accordance with the values and objectives of the state.

But coercion has a more limited grasp on the soldier's actions than do his internal value system and the mores of his unit. Discipline that is rooted in mutual affiliation and trust between leaders and subordinates is more reliable and resilient than enforced obedience.<sup>46</sup> The most effective way to assure

that military personnel behave in accordance with national policy is for personnel policies, leader behavior, and other aspects of military culture to support vertical cohesion.

The leader has the primary, though not the only, role in defining “what’s right” in a combat situation.<sup>1(pp3ff)</sup> His ability to influence his subordinates’ perceptions of “what’s right,” and his ability to link the value systems of small units with those of larger units and ultimately with national objectives, depends on the degree to which his subordinates perceive him as trustworthy. Soldiers need to be secure in the belief that their commanders are committed to their welfare and success, and will support them with every means at their disposal. Trust, rather than coercion, codes of conduct, or slogans, offers the most powerful means of assuring ethically appropriate behavior by troops in combat.<sup>47,48</sup>

It is instructive and heartening that most soldiers who inadvertently commit atrocities are horrified and depressed. In cohesive units with an agreed upon ethic of “what’s right,” they can confront their horror and shame, and get help working through it from their comrades and leaders. The primary group will support the soldier who strayed from “what’s right” in getting back on the path of ethical conduct. In most cases horizontally and vertically cohesive units will impose pressures on even sociopathic soldiers to see that they conform to the unit’s definitions of “what’s right.”

### **Enabling Military Personnel to Carry Out Morally Aversive Acts**

Whatever the national objectives may be, all wars entail inflicting death and destruction. Most people are reluctant to kill.<sup>45(pp1-39)</sup> It is the ethical duty of military leaders to create a moral and physical climate in which their members can kill designated enemies readily and efficiently.

Killing another human being is the most traumatic experience a soldier encounters. It is more stressful than fear of death or injury, and it is the experience most likely to entail postcombat psychiatric disorders.<sup>45</sup> The most common protective behavior soldiers have used has been to refrain from firing, or fire to miss. S.L.A. Marshall found that in World War II fewer than 20% of American soldiers fired their weapons in combat.<sup>49(pp50-60,72-74)</sup> Though Marshall’s data have been challenged,<sup>50</sup> Grossman has collected evidence that the majority of fighting men have avoided firing at enemy soldiers since the 18th century when firearms were first widely available to armies.<sup>45(pp5-11,19-28)</sup>

The author’s research has led him to conclude that three factors are important in enabling American military personnel to kill. The first is confidence that they have the skills and the equipment necessary to kill and have a reasonable chance of not being killed in the process. The second is the conviction that they are not alone on the battlefield and that their comrades and leaders will not desert them. The third is the belief that what they are doing is right.<sup>11,38,51</sup> These factors have psychological, practical, and ethical dimensions.

### ***Confidence in Skills and Equipment***

Training is one key to confidence, and trust is another. Knowing what to do amidst the moral and physical chaos of combat helps a fighting man to maintain his moral and psychological orientation. Realistic, state-dependent training can let a trainee experience the danger and fear as well as the practical problems associated with performing his combat skills so those skills will be available to him when he is swamped by emotions in combat. While training can build confidence in many dimensions, including the mechanics of killing, American ethics do not permit trainees to experience the emotional effects of killing. Drills in the mechanics, and frequent use of the language of killing, however, can desensitize most people to the extent that when it becomes necessary, they are more likely to be able to kill.<sup>45(pp249-256)</sup>

Trust is the second component of confidence. An individual comes to trust another as he experiences the other as being worthy of trust. It is essential to enable the members of the squads, teams, sections, and crews in military organizations to perform the grim and dangerous aspects of their jobs, including killing. When a service member kills, the reassurance and approval of comrades and leaders he trusts will help him preserve his character.<sup>36,45</sup> To develop trust among the members of primary groups, it is necessary that they train together, experience stress and danger together, and learn that they can count on their comrades to perform competently and to watch their backs. It is easy to recognize trust when it emerges in primary groups; military competence becomes the transcendent criterion by which individuals judge each other. Previously salient factors, such as sex, race, religion, and ethnicity, fall by the wayside.<sup>28</sup>

Trust in leaders is equally important. Troops in combat need leaders who are militarily competent, who tell them the truth, who strike a reasonable balance between the exigencies of the mission and the welfare of their people, and who create a cred-



ible ethical climate in which to accomplish the actions the mission requires. This is a tall order. Most junior military personnel are predisposed to trust their leaders, and this both eases and complicates the leaders' tasks. Any deviation from subordinates' expectations of competent, caring, and ethical behavior disillusiones and confuses them. If a leader wants to create a high-performing unit, he has to build high expectations, then he has to live up to them. Military leaders' every act is scrutinized by those they lead, as well as by their superiors and the general public in this era of instantaneous communication. If a leader pontificates about duty, honor, and country when the circumstances of the combat situation entail burning the homes of civilians, making inflated reports of success, and no clear-cut war aim, then trust evaporates in the resulting ethical chaos.

### ***Combatants' Belief That They Are Not Alone on the Battlefield***

Because of technological progress in targeting and in the lethality of weapons over the past century, military operations have been carried out by progressively smaller groups of people operating at greater distances from each other. The trend is accelerating. Since 1945 bomber crews have fallen from ten men to two; warship crews are only a fourth as large for a given size of ship.<sup>52-55</sup> On some contemporary battlefields an armored infantry squad, a tank crew, or the crew of an artillery piece

may not have another friendly element anywhere within its field of view.<sup>46(pp16,18)</sup>

A sense of isolation in the midst of danger is demoralizing. The last thing a lonely soldier wants to do is attract attention to himself by firing. If soldiers are to kill on a dispersed battlefield they need to believe they are part of a group with leaders who know where they are and will not abandon them. Building this belief is the most important function of an armed force in peacetime. Its foundation is trust built up through honesty, respect, open communication, and mutual concern among peers and across ranks. Many elements of the US armed forces have succeeded in creating such a climate (Exhibit 6-11).

Building the conviction in a soldier that his leaders will not abandon him is an incremental process. During peacetime training, junior personnel—and junior leaders—observe the behavior of their commanders with respect to professional competence, concern for their troops, and ethical integrity. Deeds, not words, define the trustworthiness of a leader. Leaders can demonstrate their competence through their mastery of tactics in training situations, their readiness to come up with innovative technical ideas that enhance the capability of equipment or that disrupt the “opposing forces,” and their management of schedules so that their troops' time and energies are used productively. These are the criteria leaders' superiors should use to evaluate them; they are certainly the criteria subordinates will use to judge their worthiness to be obeyed.

## **EXHIBIT 6-11**

### **PATHFINDERS IN IRAQ**

The performance of Staff Sergeant Gary Rister's three-man pathfinder team from 2-17 Cavalry, 101st Air Assault Divisional Reconnaissance Squadron, during the invasion of Iraq in 1991, is a good example of how confidence based on trust can counteract isolation on the battlefield. Sergeant Rister's team had the task of setting up an electronic beacon in the Iraqi desert to guide the 101st Air Assault Division's helicopters. There were no friendly elements on the ground or in the air within 20 miles when the team got its beacon working. They looked for a hiding place from which they could keep an eye on it. Suddenly they were taken under fire by a platoon of about 30 Iraqis in several well-camouflaged bunkers. The three Americans assaulted and seized the first bunker that had fired on them, captured the lieutenant in command, and sent him out of the bunker carrying a white flag. The rest of the Iraqis fled across the desert. Sergeant Rister's team had no fire support, no air support, no backup, and no radio contact. In reality they were alone on the battlefield, but psychologically they were not isolated. They could have fled, but their comrades were counting on them. They knew how to fight, that they could count on each other, and that they belonged to a squadron that would not abandon them. With that knowledge, they attacked.

Source: Taylor TT. *Lightning in the Storm: The 101st Air Assault Division in the Gulf War*. New York: Hippocrene Books; 1994: 337-340.

### ***Combatants' Belief That They Are Doing "What's Right"***

Shay has described the destruction of a combatant's character in the moral vacuum created by the military culture in Vietnam.<sup>1(pp5ff,9-21)</sup> He pointed out that an army is a moral construction; that combatants need a credible and appropriate ethical foundation to sustain themselves psychologically. In collaboration with their leaders they create ethical systems, strive to live up to them, and expect their leaders to model them. Betrayal of ethical values by military leaders can lead to a state of moral confusion that affects performance in combat. Exhibits 6-1, 6-7, and 6-10 demonstrate how duty and loyalty become meaningless concepts, reports are routinely faked, and atrocities are more likely in times of moral confusion. Exhibit 6-12 is an example of ethical chaos in the culture of a division in which the author served in Vietnam in 1968.

Studies of Germans who committed atrocities during World War II indicate that soldiers' perceptions of "what's right" are influenced by the military culture. Leaders are the primary channel by which soldiers acquire these values. In the case of German soldiers in Russia, Hitler, his High Command, and most subordinate commanders advocated values that required soldiers to behave in ways Americans perceive to be atrocious. In the case of the US division in Exhibit 6-12, senior leaders created frustration and fear in their subordinates because they were unable to find their own moral bearings. They tacitly encouraged junior soldiers to alleviate their

feelings of impotence by attacking civilians.

When there is a moral vacuum in the command and the military culture, perceptions of "what's right" emerge among junior personnel seeking to create a moral foundation. Ethicists and military professionals alike may be horrified at the moral relativism inherent in junior personnel in each unit working out their own version of "what's right," and holding their leaders to it. In the author's view, however, it is heartening that unsophisticated junior fighters make spontaneous efforts to construct a moral foundation for their participation in the war. Definitions of "what's right" during the war in Vietnam were remarkably consistent across units and even across services in spite of the moral confusion at the policy and senior command levels.<sup>1,5,56-60</sup> During the invasions of Panama and Iraq, for which the general purposes and values were clearly articulated by the commanders-in-chief, units of the ground forces embraced definitions of "what's right" that were closely linked to those purposes and values.<sup>38,39,61,62</sup>

### **Strengthening Resistance to Combat Stress Breakdown**

The record of American military personnel over several wars indicates that they do not want to be bullies, they do not want to hurt innocent people, and they want to believe they are engaged in an honorable war. A credible moral basis for combat prevents atrocities, enables soldiers to kill when they must, and it also helps them manage their emo-

#### **EXHIBIT 6-12**

#### **POT-SHOTTING CIVILIANS FROM HELICOPTERS**

A divisional staff officer in Vietnam in 1968 was riding in a helicopter when the door gunners suddenly opened fire on civilian workers on a tea plantation. He immediately ordered the gunners to cease fire. The aircraft commander was indignant and said that all the crews fired at the workers in that plantation because everyone knew the plantation owners paid off the Vietcong. He said that if a worker ran when he was fired at it meant he was Vietcong and they would try to kill him. And anyway, it was good practice for the door gunners. The staff officer reported this manifestly dishonorable and criminal behavior to the aviation battalion commander—who told him to mind his own business. He then reported it to the division chief of staff—who said it was best not to interfere: "The helicopter crews are under a lot of stress, and we count on them."

This is an example of a major command (18,000 men) in ethical collapse. The door gunners had approval from the officers commanding their helicopter to engage in killing innocent people for fun. The aircraft commanders were mostly 19- to 22-year-old warrant officers whose commanders asked no questions about what the gunners fired on. When the issue was placed before senior officers—the aviation battalion commander and the divisional chief of staff—they were simply too busy, too tired, and too remote from moral considerations to become involved. After all, the targets were "only" Vietnamese, and the gunners usually did not hit anyone.

tions after combat. Such management is essential to enable them to remain psychologically combat-capable, and to protect them against posttraumatic stress disorder.

A moral purpose for war is not the same thing as a “just war” in the sense that just war theorists use the term. (See Chapter 8, Just War Doctrine and the International Law of War, for a further discussion of just war theory.) For a combatant, the language of treaties is remote. What matters to the soldier is that the action he is embarked on makes sense and is not transparently criminal. A commander who fabricates a “just war” rationale for an action the real purpose of which is simply advancing national interests squanders his credibility.

On the other hand, there is much that commanders can do that is honorable to support resistance to psychological collapse in combat. They can assure that missions are ethically valid and that commanders are committed to the same values as their subordinates. They can acknowledge and accept soldiers’ emotions during after-action reviews. And they can mobilize and validate the actions of chaplains and mental health professionals.

### *“What’s Right” and Combat Stress Breakdown*

Combat stress breakdown is collapse of character in the face of fear, guilt, misery, and betrayal of “what’s right”—the accepted operational ethics in the unit. Personnel suffering acute combat stress breakdown exhibit a variety of symptoms—apathy, depression, overwhelming anxiety, chronic shivering, recklessness, paranoia, acting out, and psychosomatic disorders, to name a few of the most common. These symptoms not only cause personal distress, they impair the sufferers’ ability to perform duties and care for themselves. Evidence from World War II demonstrated that every person will, at some point, undergo breakdown in the face of the stresses of combat.<sup>63(pp15–16)</sup>

Untreated, combat stress breakdown becomes chronic posttraumatic stress disorder (PTSD). Victims of PTSD suffer from a cluster of symptoms that includes startle disorders, nightmares, and flashbacks.<sup>64(pp412,417–420)</sup> They also suffer damage to their character in the form of inability to trust, love, and concentrate. The damage to character has the greater disabling impact and social cost. Recovery is slow, difficult, dependent on a supportive community, and may never be complete.<sup>1(pp184–195),3</sup>

Unit cohesion has been demonstrated to be the most effective way of strengthening personnel against combat stress breakdown.<sup>28,65,66</sup> Ethics and

cohesion are interactive and mutually supporting. Together they help military personnel postpone the onset of breakdown, lessen its severity, and support recovery.<sup>1(pp196–204)</sup> This chapter has discussed how ethics support military personnel in combat and the role of ethics in building cohesion. The most powerful catalyst for breakdown is command betrayal of “what’s right.” The reason command betrayal has such a disastrous effect on character is that fighting personnel depend for their sanity on the agreed definitions of “what’s right,” and they depend for their survival on the integrity of their commanders. If their leaders lie to them, or send them on missions that require them to do things that are “not right,” or abandon them psychologically on the battlefield, the slender thread of trust that sustains them is broken.<sup>36</sup> If the primary group bonding is sufficiently strong, the members of the group may survive psychologically by validating each other, but vertical cohesion will be destroyed. The members of the squad or other unit will unite against higher echelons, and the unit will be lost to command.<sup>28,67</sup> If the primary group is not strongly cohesive, its members will be psychologically adrift, and damage to character is probable.<sup>1(p198)</sup>

### *Ethical and Psychological Support for Morale and Character*

When the officially stated purpose of a military intervention is at variance with the observable facts, commanders are in a quandary. They know their troops want to be part of a good war, and the wiser ones know that the troops will not believe a false rationale. Protection of organizational cohesion and the troops’ psyches demand that commanders tell the truth as best they can. The principal cause of character damage to soldiers was leaders’ betrayal of their subordinates’ moral assumptions about fairness.<sup>1(pp9–20,169ff)</sup>

In addition to structuring a credible ethical system and communicating honestly with subordinates, there are processes by which commanders can help their troops manage their moral and emotional ambivalence about carrying out aversive duties. The most effective is the after-action review (AAR) that has become a component of leadership in some services. Similar to a critical incident debriefing, the AAR is a rank-free, open discussion among all of the members of small units or command groups about a training or combat event. Everyone describes what he perceived and did, and what he perceived others as doing. Together, the members of the unit learn tactical lessons and refine teamwork.

When the AAR includes emotions as well as actions it offers the individual an opportunity to have his feelings validated by his peers and leaders. The AAR becomes an ethical forum in which guilt, fear, grief, horror, and barbarous acts can be detoxified by the approbation of the group, if the group determines that the feelings and actions fall within the boundaries of "what's right." The AAR also serves as an informal court to curb a member whose actions are deemed out of line, and as a legislature to revise the definitions of "what's right" to cover situations not previously considered. These processes of developing moral values and applying them to validate or condemn actions may be anathema to those who are only comfortable with a set of absolute values, but the processes work. They preserve the psychological fighting integrity of units, they strengthen the individual's ability to resist combat stress disorders, and they stifle tendencies toward committing criminal acts.

### ***Commanders, Chaplains, and Mental Health Professionals***

Even in units with strong horizontal and vertical cohesion supported by a coherent and credible body of ethics, crises occur in combat and in training that put the members under severe stress. When these occur, critical incident debriefings or AARs are the most effective way of alleviating psychological trauma.<sup>68</sup> The involvement of chaplains and mental health professionals can support command in helping soldiers survive crises with their psyches intact. Constructive collaboration among these agencies has not been common in the past, but when it can be achieved each can reinforce the others.

Prior to the Persian Gulf War, chaplains were

accepted by line commanders and their troops. They were present at brigade and sometimes battalion level, and most took an active part in the spiritual and familial lives of service members. Unlike the chaplains, mental health professionals not only were not accepted, they were generally feared. Their role was usually perceived as assessing the mental states of personnel in processes leading to court martial or to administrative elimination. To admit to having psychological problems was to end one's career.<sup>61</sup> In professional armed services most of the members want to stay in, and they do not want mental health professionals finding out things about them that could jeopardize their careers.

Before 1990, psychiatrists, psychologists, social workers, and mental health technicians usually stayed in hospitals and were seldom known in line units. In the mid-1980s, under the leadership of General Maxwell Thurman, the Department of the Army began a reorganization of medical assets to make possible the formation of combat stress control teams.<sup>69</sup> During the Persian Gulf War such teams were hastily organized and deployed to the theater where they offered their services to forward units. They received a skeptical reception in most units, but some managed to establish their credibility. When crises arose, several combat stress control teams were helpful in debriefing emotionally traumatized personnel and supporting them.<sup>70-72</sup> Mental health personnel learned to ally themselves with chaplains who were already accepted in most units. The chaplains helped combat stress control teams begin the process of winning trust. Mental health personnel are difficult for some commanders and chaplains to tolerate,<sup>61,71(p128)</sup> but they all have a common goal of supporting the psychological readiness of the troops they serve.

## **MILITARY CULTURE: A RESPONSIBILITY OF COMMAND**

Military culture defines the ways an armed force does its business in peacetime and in combat, provides the foundation for relations between ranks, and defines the responsibilities of leaders for the personal, professional, and familial welfare of their personnel. The development of horizontal and vertical cohesion depend on shared cultural and moral perceptions. Ethical components of military culture are essential to enable fighting personnel to accomplish their missions of killing, to limit their activities to those required to accomplish national objectives, and to help combat personnel survive their experiences psychologically. Together these pro-

cesses define the capacity of an armed force to fight, to cohere, and to recover to fight the next campaign. It will come as no surprise that the responsibility for interpreting, adapting, and transmitting military culture lies with command.

This section is an essay on creating an ethically supportive military culture. It has three parts. The first is a discussion of authority and discipline and how an ethically unsupportive culture undermines them. The second is a description of cultural processes by which leaders build support for the command structure in a post-Cold-War environment. The third is a prescriptive set of ethical-cultural elements



for an armed force in the 21st century. Together the three parts will define some of the essential behavior commanders need to incorporate if they are to build bonds of trust with their subordinates.

### **Authority, Discipline, and Maladaptive Cultural Practices**

Many military leaders assume that their position in the hierarchy gives them authority. But authority, the expectation that a leader's orders will be obeyed, is much more complex. To be sure, positional authority can be effective when stakes are modest and stress is minimal. When things get tense, people look for someone to show them how to cope, and if the nominal leader can do it, his subordinates will be quick to ratify his authority. If he cannot, his followers will withdraw authority from him and give it to someone who can show them how to manage their situation. Leaders have real authority only to the extent that their followers are prepared to grant it to them.<sup>73</sup>

Subordinates confer authority on superiors whom they trust and in whose competence they have confidence. Professional ignorance is the mortal enemy of military authority. When a person in a position of leadership does not know what to do, he is embarrassed, and he may often use bluff, lies, and undue emphasis on matters he does understand to cover his ignorance. Incompetence has sometimes become so pervasive that elaborate institutional practices have evolved to conceal the ignorance of senior personnel and cloak them with some sort of mask of authority, irrespective of its substantive relevance.

For example, many service members have undergone inspections such as the US Army's annual general inspection. The chief of the inspection team typically introduced his team with words such as, "We are here to see if you can accomplish your mission." The team then proceeded to conduct a minute inspection of the magazines in the dayroom, unit punishment records, mess hall accounts, and the uniformity of displays of individual field equipment that is never taken to the field.<sup>29(pp70),74(pp70-78)</sup> Usually the inspectors inspected everything that had nothing to do with the mission, and nothing that had anything to do with the mission. The reason was that the inspectors were not technically qualified to inspect matters pertaining to the mission, so they inspected what they did understand, and passed judgment on the unit. The concept of the inspection is devoid of integrity because it re-

quired the members of the inspected units to divert a great deal of time to preparing the eyewash the inspectors would evaluate instead of preparing to perform their actual mission. Everyone from the battalion commander on down knew that the annual general inspection was meaningless.<sup>74(pp70-74)</sup> Because the inspection was fraudulent, but was treated as a matter of great moment by command, it undermined confidence in the integrity of command.

Another institutionalized fraud is the unit status report. Its ostensible purpose is to inform senior commanders of the readiness of units so they can use the unit appropriately and take action to provide the unit with resources it is lacking. But when the report was created in the mid-1960s the military cultural climate was such that most commanders believed that their careers depended on reporting the highest readiness rating irrespective of the actual condition of their commands. Commanders felt pressure from all their superiors—who would look bad if one of their units reported a low readiness condition.<sup>29(pp59ff),74(pp58ff)</sup> So, in the weeks prior to submission of the reports, middle-rank commanders assembled their subordinate commanders and had them transfer, on paper, personnel and equipment so that their records would indicate that every unit was at the highest possible state of readiness. Senior commanders were pleased; their units looked good, and they did not have to make any hard choices about allocation of resources or do any work to strengthen units. Such exercises in deceit divert time and energy from real missions, approve unethical conduct, and demonstrate that—from the perspective of senior commanders—honor is irrelevant.

It is easier to criticize procedures than it is to identify the reasons why they have become corrupted. Annual general inspections and unit status reports are not inherently dishonorable; it is the military culture and the psychological climate underlying them that are the problems. The primary reason why honor can become irrelevant for basically honorable men is that many service chiefs fear their civilian masters, and they alleviate their own anxiety by inducing insecurity in their subordinates who induce it in their subordinates, and on down the line.

Building insecurity among subordinates is a system that does not work. It makes it too dangerous for leaders to empower subordinates, it stifles innovation, and it breeds fear of action. The result is passive, querulous leaders who believe that to avoid being fired they must look good and avoid criticism. When looking good is mandatory, nobody is will-

ing to take the risks required to be good. This is a dangerous atmosphere for institutions in which incompetence can mean death. Leaders in some of the services, recognizing the importance of building a sense of security among subordinate leaders, are struggling to do so. It is a difficult task when insecurity is rampant because of repeated waves of downsizing.

But it is a task of the greatest importance for the effectiveness of the armed forces. During the 1950s and 1960s the author observed a military culture based on looking good, careerism, and lying breed a generation of technically incompetent field grade and general officers. The inability of these men to assess and develop the proficiency of their units in combat in Vietnam limited US fighting power and led to the disintegration of morale and discipline between 1968 and 1972.<sup>18,25,75</sup> There were incidents of junior enlisted soldiers refusing missions,<sup>18(pp98ff),25(pp45ff)</sup> and assassinations of leaders whose incompetence their subordinates believed threatened their lives.<sup>1,14,18,25,74,76</sup> Soldiers who killed or tried to kill their superiors, and were caught, were punished.<sup>14(pp121–122)</sup> A military service must punish subordinates who attack their superiors, but when assassination attempts become relatively frequent, it is the task of the command structure to look at itself.

The US Army did look at itself, at the instigation of Lieutenant General William F. Peers, who described to General William C. Westmoreland, then Chief of Staff of the Army, the ethical bankruptcy of the Army culture as revealed by the perceptions of serving officers. The US Army War College *Study on Military Professionalism*,<sup>12</sup> discussed earlier, confirmed General Peers' perceptions, but General Westmoreland and other senior generals refused to accept the report or act on its findings.<sup>14(pp107–113)</sup> The senior leaders abandoned their junior leaders to a militarily maladaptive, ethically corrupt, and psychologically destructive culture. Senior commanders have the legal standing and the coercive capabilities to impose standards of ethical behavior, such as those stated in the *Code of Conduct* or the lists of official values of the Army, Navy, and Air Force, on their subordinates. (See Chapter 5, *The Profession of Arms and the Officer Corps*, for a discussion of the official values of the services, including the *Code of Conduct*.) But when they presume to impose arbitrary standards in a context of perpetuating a corrupt military culture they lose their moral authority, and few people will take the standards they promulgate seriously and incorporate them into their behavior.<sup>47,48</sup>

Military traditionalists insist on unquestioning obedience. For them, punishment of misconduct is the only way to develop an orderly and efficient unit. If "good" behavior is rewarded and "bad" behavior is punished, then everyone will hew narrowly to accepted patterns of conduct. Communications with subordinates, respect for them and their views, and such emotional issues as ownership of the mission are not considered to be part of the equation. The evidence from studies conducted by the Walter Reed Army Institute of Research during the 1980s indicates that authoritarianism is not ethical because it does not work. It does not work because it creates an adversarial relationship between superiors and subordinates, alienates junior personnel, and kills vertical cohesion. Members of units led by compassionate, competent, candid officers and noncommissioned officers (NCOs) are not only more enthusiastic and interested in their military activities, but better disciplined and more proficient as individuals and as team members. Such leadership behavior is ethically valid because it meets the psychological needs of individuals as well as institutional needs for order and operational effectiveness.

### **Building Support for Discipline and the Command Structure**

When national objectives, the ethical standards promulgated by command, the conduct of leaders, and soldiers' sense of "what's right" are in synchrony, soldiers will endow command with full authority and thus vertical cohesion will be strong. One need only look at the ineffectiveness of most units of the Republic of Vietnam's Army between 1965 and 1972 to see how loyalty evaporates and combat effectiveness disappears when these moral factors are not in synchrony.<sup>77</sup>

In considering how to strengthen respect for discipline and the command structure it will be useful to consider four aspects of military culture: (1) the nature of discipline, (2) the process of creating an ethical framework, (3) intrainstitutional communications, and (4) managing ethical ambiguity.

### **The Nature of Discipline**

Discipline is a complex operational and ethical concept. At its core it refers to the disposition of troops to behave properly. In the US armed services the ideal of discipline is achieved when junior personnel intelligently, willingly, cheerfully, and correctly accomplish tasks and missions in the absence of orders or supervision.

This is the view of discipline that produced the tank crews of the Persian Gulf War, men whose internal drive for proficiency and sense of responsibility to their comrades enabled them to take advantage of the technological superiority of their equipment to destroy several Iraqi tanks before most of their adversaries could get a round off against them.<sup>39</sup>(pp261–272) It is the kind of discipline that steadied soldiers in Panama conducting “Sand Flea” operations against the Panamanian Defense Force (PDF). These operations, designed to harass and provoke Panamanian soldiers prior to hostilities, pitted small patrols led by sergeants against heavily armed and nervous Panamanians. The Americans kept their composure and prevailed; their discipline was supported by their professional confidence, trust in their leaders, and conviction that they were doing “what was right.”<sup>38,61</sup>

In contrast to the idealized notion of discipline, there has been a tendency in many armies to consider that disciplined conduct is a duty owed by subordinates to their superiors, a duty the subordinates fail to fulfill at their peril. In this author’s opinion, this tendency has dominated the US armed forces for most of their history. It had some measure of validity during periods of emergency mobilization when time was short, the number of professional soldiers small, and the bulk of conscripted service members would return to the civil sector when the war was over. But even then abandoning the ideal of discipline was a suboptimal approach.

Respect for command and authority is not to be assumed in a professional armed force. To be sure, habits of trust in leaders and of teamwork are important parts of the structure of discipline in such a force. But these habits emerge as the consequence of prolonged experience between leaders who respect their subordinates and recognize their dependency on them, and followers who respect their superiors for their competence and their demonstrated interest in their troops’ welfare. It is not habits of obedience or submission to rituals of subordination that create combat-worthy discipline. It is the interdependence and trust developed as subordinates experience the integrity, competence, and concern of their superiors.<sup>73</sup>(p45)

This said, one cannot neglect the fact that some service members violate regulations and their comrades’ views of “what’s right.” Antisocial acts, dishonesty, and behavior that undoes work done by good soldiers all diminish trust and cohesion. Commanders have an ethical and pragmatic obligation to their good subordinates to punish or get rid of the bad ones.

### *Creating an Ethical Framework*

One of the ways in which leaders earn respect and authority is by structuring an ethical framework in their units that fits the realities of the situation and is psychologically supportive. Structuring ethics requires insight, courage, and sensitivity to the concerns of subordinates. For an ethical program to be effective, it must make sense in the eyes of subordinates. They are more likely to embrace it in a climate of mutual trust and confidence than if they are under the threat of court-martial. And they will only respect the command structure when its values are consonant with observable reality.

Commanders can strengthen their own authority and the bonds of vertical cohesion by building on shared moral values in deriving ethical precepts. While it is not realistic to expect commanders to solicit overtly their subordinates’ opinions about “what’s right,” they can discern their subordinates’ values through informal discussions with junior enlisted personnel and first-line supervisors. This is not as difficult as it may appear; effective commanders at all echelons routinely spend a substantial portion of their time listening to their subordinates. Most of the subordinates’ values will be consonant with those required by the military and political situation. When they are not, the commander’s task is to provide training and education. The success of any effort to change soldiers’ attitudes is a function of the trust the soldiers have in the leaders and the US Army. Commanders who demonstrate by their policies and behavior that they respect their subordinates’ ethical perceptions, and that they are competent, trustworthy, and committed to supporting subordinate personnel, have substantial ability to shape the moral attitudes of their personnel.

It is important that commanders share their subordinates’ perceptions of the situation in which they are operating. Ethical tenets that enjoin behavior that is not realistically possible under a particular set of circumstances provide no support, demonstrate that command is not in touch with reality, and increase the individual soldier’s sense of alienation and despair.<sup>15</sup>(pp161,180,209ff) When soldiers lose faith in command, their participation in the mission drops and their propensity for the full range of acting out—alcohol, drugs, desertion—grows.

Normally the components of such an ethical framework will be values readily acceptable to the members of the unit. But often the circumstances of a conflict dictate special ethics. During the invasion of Panama in 1989 the objective of avoiding

casualties among Panamanian civilian and military personnel took precedence over force protection, one of the four primary elements of combat power.<sup>78</sup> The rules of engagement for that particular military action specified that no American could fire unless he was fired upon and could positively identify the source of the fire. Commanders required their personnel to concede the first shot to the enemy.<sup>38,61</sup> These rules imposed dramatically increased danger on the Americans, and heavy responsibility on the leaders who had to tell their men to follow them. The soldiers did follow the rules, and took pride in doing so. Most of them trusted their leaders. Those leaders had candidly explained the reasons for the restrictive rules of engagement, and the soldiers had confidence in their ability to prevail even though they had to let the other side get the drop on them.

### *Intrainstitutional Communication*

Linking an ethical structure with perceived reality is a matter of honesty and of communication. Keeping subordinates informed has been a tenet of US military leadership for decades, but one not often implemented. There are always pretexts for withholding or distorting information, such as: knowledge of the situation would confuse or frighten the troops; the troops only have to obey, not think; or the troops are too ignorant to understand the big picture. These pretexts have more often than not covered commanders' ignorance, mistakes, or inability to address effectively the situations before them. Exhibit 6-13 summarizes three historical examples of noncommunication by commanders that led to military catastrophe.

Honest, frank communication by commanders not only conveys information to the troops, it also conveys the commander's respect and concern for them, and lets them know he is aware of the same reality they are. Subordinates are more likely to embrace ethical tenets from commanders when they are confident that their chiefs understand the situations they face. Furthermore, they are much more likely to win.

### *Command in Ethically Ambiguous Situations*

The military interventions that have followed the end of the Cold War have often been characterized by imprecise definitions of military missions that leave military personnel facing situations that are morally ambiguous. Humanitarian objectives, political agendas, international intrigue, criminal activity, and military operations are commingled in

situations that may place military personnel in danger, or at least in discomfort. Moral ambiguity puts stress on military personnel and on the vertical cohesion that links the capabilities of the unit with national purposes. Sometimes the vertical cohesion developed through the competence and integrity of leaders during peacetime is strong enough to see a unit through a period of uncertain, changing, and ethically confusing missions. But if command fails to adhere to a realistic and coherent ethical system, cohesion is strained and may even collapse—as it did in some units in Vietnam. It is worthwhile to review the military culture of the early years of the post-Cold-War era from the perspective of command integrity.

In Panama in 1989 and 1990, soldiers and marines were called upon during Operation Just Cause to defeat and subjugate the Panamanian Defense Force. They did that within a short period of time, and the mission shifted to constabulary work. They did that, and the mission shifted to nation building. They accomplished that mission also, even training former PDF soldiers to be a national police force. The command structure had communicated the complex objectives of the invasion of Panama clearly and comprehensively. Junior personnel understood that the purpose of the military operation was to put an end to the Noriega regime, then to help the Panamanians set up a stable democratic government. Vertical cohesion held units together as they worked successfully to master constantly changing missions. But in the months following the operation many of the American soldiers and marines realized that the United States had pulled out and let the Panamanians fall into economic collapse and chaos. They expressed dismay at the lack of moral purpose in the US government, and vertical cohesion became frayed.<sup>4,61</sup> General Thurman, who was Commander-in-Chief, US Southern Command, before, during, and after the invasion, shared his subordinates' dismay. He felt that he had failed by not putting together a comprehensive, long-term development plan. However, he found no interest among other branches of government for such a plan.<sup>4</sup>

The stated purpose of the United Nations Operation Restore Hope, which occurred between 1992 and 1994, was to avert starvation in Somalia. American forces organized around the 10th Mountain Division accomplished that purpose, and most of the combat forces returned home. In October 1993, 4,000 United Nations personnel remained, of whom about 600 were combat troops. At this time the President of the United States directed the commander of the US contingent to seize Mohammed Farah Aidid, the



## EXHIBIT 6-13

## POOR INTERNAL COMMUNICATIONS RESULTING IN MILITARY FAILURE

The following three examples demonstrate the critical importance of internal communications (ie, between component units) in a theater of operations.

**Example 1:** In 1905 Admiral Zinovi Rozhdestvenski led the Russian Baltic Squadron, a force of eight battleships, six armored cruisers, and 39 supporting vessels, halfway around the world to fight the Japanese fleet in the Tsushima Straits between Japan and Korea during the Russo-Japanese War. He did not share his battle plans with his subordinate commanders. As the squadron went into action his divisions had no idea what the others would do and what their own roles in the battle should be. The Japanese fleet, though inferior in gun power and numbers of battleships (four battleships and eight armored cruisers), sank, captured, or forced into internment 50 of the 53 Russian ships without losing any of its own.<sup>1-3</sup> Admiral Rozhdestvenski may have felt that he did not know how to face the Japanese fleet, or he may have been paralyzed with fear. His failure to communicate and act in concert led to a decisive defeat for the Russian Navy.

**Example 2:** Lieutenant-General Arthur Percival was commander-in-chief of British air, ground, and sea forces in Malaya and Singapore in 1942. The Japanese assaulted Malaya from the sea, fought their way down the peninsula and attacked Singapore from the landward side, thereby avoiding much of the British seacoast artillery. General Percival refused, as a matter of policy, to communicate information about the Japanese invasion to the civilian officials and population in Singapore. He refused to build defensive positions because "it would alarm the inhabitants." He declined to mobilize civilian labor resources on the island because he feared civil unrest. The Japanese with 60,000 soldiers defeated the British, who had 80,000 men plus the entire Malay population, good defensive ground, and powerful artillery.<sup>4</sup> General Percival clearly feared the native population, kept them uninformed, and even forbade defensive measures that would reveal the gravity of the situation. The Japanese had a coherent battle plan while the British refused to inform, mobilize, and coordinate their superior resources.

**Example 3:** In 1935 General Douglas MacArthur accepted responsibility for training and organizing the Philippine Army. The Philippine-American war plan envisaged a surprise Japanese attack by 100,000 men. The Philippine-American forces were to withdraw into the Bataan Peninsula and hold out for 6 months until reinforced. Events developed exactly as foreseen except that the Japanese attacked with only 43,000 men. The Philippine-American forces conducted a 30-day delaying action to enable MacArthur to build up supplies in the Bataan Peninsula and build fortifications. When the field commanders got to Bataan, they found that MacArthur had failed to tell them that he had made no provision to feed their troops. After 3 months of starvation the 76,000-man Philippine-American forces surrendered to a force half their strength. General MacArthur's failure to communicate concealed his mistake in not moving supplies to Bataan, his ignorance of the relative efficiency of the forces engaged, and his failure to dispose his own forces effectively. Though voluble about the hardships he faced, he was silent about his own incompetence.<sup>5,6</sup> (The fate of these captives was detailed in Exhibit 6-9.)

Sources: (1) Hough RA. *The Fleet That Had to Die*. New York: Viking; 1958. (2) Brassey TA. *The Naval Annual*. Portsmouth, UK: J. Griffin & Co.; 1905. (3) Jane FT. *Fighting Ships*. London, UK: Sampson Low Marston; 1906. (4) McIntyre WD. *The Rise and Fall of the Singapore Naval Base, 1919-1942*. Hamden, Conn: The Shoestring Press/ Archon Books; 1979. (5) Whitman JW. *Bataan: Our Last Ditch*. New York: Hippocrene; 1990. (6) Perret G. *There's a War to be Won: The United States Army in World War II*. New York: Random House; 1991: 47-58.

most powerful warlord in Somalia.

A force of 106 Rangers and Special Operations men raided Aidid's headquarters in a section of Mogadishu where he had once been mayor. The Secretary of Defense had denied the assault force the armored vehicles it needed, the US Air Force crew assigned to man a gunship was on leave in Italy, there was no artillery support, and no contingency plan in the event they got into trouble. (The reasons for

these failures remain classified.) Several thousand Somalis trapped the raiding party, shot down three of the helicopters that brought them in, and destroyed the raiders' ground vehicles. The US command took 11 hours to organize a relief force and send it the 3 miles from the US base to the raiders' defensive position. By the time the American troops were extricated, the assault force and the relief force had lost 18 dead and 73 wounded.<sup>74(pp156-178),79</sup>

Though the troops behaved with courage and honor, there were dishonorable failures by senior civilian and military leaders: the President for changing the mission from humanitarian relief to combat after the combat forces had been withdrawn; and the Secretary of Defense for: (a) committing troops to heavy urban combat without armored vehicles, fire support, and numbers adequate for the mission; (b) failing to make contingency plans; and (c) refusing to cooperate across service and branch boundaries. No one was held accountable. The theater commander was promoted to lieutenant general, the task force commander was appointed to head the US Army Special Warfare School, and the White House and Department of Defense put a special handling classification on everything about the operation to protect it from inquiries under the Freedom of Information Act.<sup>74</sup> The Senate conducted an investigation, but the White House blocked the release of the report.<sup>74</sup> There was no coherent ethical system linking the President, the military chain of command, and the troops who conducted the mission.<sup>74(pp178–190)</sup>

The soldiers on duty in Somalia had faced many moral dilemmas. They were tasked with carrying out a humanitarian mission in the face of heavily armed autonomous groups. Neither the National Command Authority nor local commanders could decide whether to destroy the combat capability of the bandits or to appease them. They decided to attack the bandits a little and to placate them a little—which left them armed and angry. Junior soldiers on the ground had to make a number of hard moral decisions in the face of the unresolved moral dilemmas.<sup>80</sup> They did an outstanding job, but many were disillusioned with the incompetent commanders and government that sent them in harm's way and then evaded responsibility for the outcome.<sup>74(pp162,180–181)</sup>

From 1992 to 1993 the US Army deployed a mobile army surgical hospital (MASH) to Zagreb, Croatia. Though only 20% of the resources of the hospital were used to treat United Nations troops, the complex and internally divided command structure refused to allow the medical staff to treat sick and injured Croats. The official reason was that the hospital had to maintain a neutral position.<sup>51(pp82–83)</sup> The hospital staff experienced danger, filth, and hunger, but they felt that they were not doing nearly as much as they could. They were morally outraged to see Croats suffering while they did nothing. Their perceptions were that the multiple and overlapping headquarters that controlled the activities of the hospital staff were more concerned with how they appeared to the media, to each other, and to their superiors than with

providing medical service to suffering people. Vertical cohesion plummeted because the command structure did not demonstrate integrity.<sup>51(pp80–84)</sup>

In morally chaotic situations, military personnel depend on integrity in the chain of command for psychological sustenance. Honor requires commanders to provide ethically credible missions, competent leadership, adequate resources, and compassionate treatment for foreign military and civilian personnel. Moral failure at the top can vitiate efforts by intermediate and junior leaders to establish ethical coherency in their units.

### **Elements of an Ethically Supportive Military Culture**

An ethically supportive military culture is one in which in the daily course of events soldiers perceive that the institution, as represented by its policies and the behavior of its officials, is committed to their welfare and success. Such a culture fosters the development of trust. I will discuss four aspects of an ethically supportive military culture that are usually neglected: (1) managing subordinates' time and energy, (2) building a sense of security for subordinate leaders, (3) supporting leaders' self-maintenance, (4) and guiding sexual behavior in gender-integrated units.

#### ***Managing Subordinates' Time and Energy***

Troops understand that their leaders have missions to accomplish, and that the leaders have to balance the effort they ask of their troops against the troops' personal needs—sleep, time with families, and a predictable schedule of events. Many leaders who grew up in the traditions of World War II put any mission, no matter how trivial, ahead of any needs of their subordinates, no matter how significant. While a new respect for junior personnel is emerging, there are still tendencies at most echelons toward habitual demand overload.<sup>30</sup> Leaders who have the ethical stamina and professional judgment to organize work and assign priorities so that the troops get some respite, earn their subordinates' trust. As will become apparent, when troops see that a leader does not have the moral courage to resist the pressure to assign every task a number one priority, they will not trust him in combat.

In the US armed forces since 1945, the plethora of officers and dearth of command positions has led to a burgeoning of staffs with insatiable appetites for information and for projects through which the staff officers can win distinction.<sup>74(pp130ff,299ff)</sup> The task of providing the information and executing the projects falls on the lowest echelons.<sup>25(pp12,64,136)</sup> "Do

more with less” became the slogan of the 1990s. It is the kind of slogan that increases alienation and weakens people’s confidence that they will not be left to face a superior’s displeasure or be abandoned on the battlefield. It indicates that senior commanders lack the courage to say “no,” are afraid to stand up for their subordinates, and are unwilling to accept responsibility for assigning priorities.

The reason that management of time is an important capital issue to military culture is that no commander can take charge of it in isolation—he needs the support of the military institution as a whole. A company commander or the skipper of a small warship may do his best to become a competent practitioner of his profession, assign priorities, and respect the personal needs of his subordinates. But if he is constantly inundated with requirements for reports, VIP demonstrations, community activities, fatigue details, and other distracters, his efforts to assign priority to the work most relevant to his unit’s mission will lead to some senior commanders or staff officers being dissatisfied, and to his being relieved. If he is to progress in his career, he must often disregard his subordinates’ welfare and try to fulfill every requirement. The ethical issue, then, is that for a commander to behave in an honorable manner balancing missions and his troops’ welfare, he needs an honorable chain of command above him blocking extraneous requirements before they reach him.

The respect for subordinates that began to emerge in the Army and Marine Corps in the 1980s and 1990s has had some effect in mitigating demand overload,

but continuing reductions in strength without a concomitant reduction of missions tends to perpetuate it. Thus, smaller forces put heavier demands on senior leaders to stand up for the service members they command and to choose the harder right of refusing inappropriate missions. In this author’s opinion, unless senior commanders are prepared to resign when the government imposes requirements that are out of line with capabilities and resources, there can be no solid ethical foundation in the armed services. Their subordinates will not be able to believe in them, and will feel they are being sacrificed to their chiefs’ cowardliness and ambition.

### *Building a Sense of Security for Subordinate Leaders*

Many American commanders have been quick to threaten their subordinate leaders, especially in combat. A typical peacetime threat is: “You get a fence built around your orderly room, I don’t care how, or it will reflect on your efficiency report.” Wartime threats take the form of, “Accomplish this mission or don’t come back alive.”<sup>81–83</sup> This sort of behavior during World War II was characterized as strong, even heroic, leadership.<sup>81,82,84,85</sup> In fact it was the opposite. Weak and insecure commanders routinely used threats<sup>81(p211)</sup> (for examples, see Exhibit 6-14), and ordinary commanders resorted to threats when they were uncertain about what to do.<sup>5(pp230ff,295ff,784ff)</sup> Commanders who have strong characters do not use threats; when the situation is desperate, they say so and ask their troops to do their best.

## EXHIBIT 6-14

### WEAK AND INSECURE COMMANDERS

World War II was generally acclaimed as a “good” war, with evil adversaries (Hitler, Tojo, and Mussolini) and clear-cut objectives (survival of the United States and the defeat of evil on a global scale). There has been a reluctance to criticize real commanders (in sufficient detail to permit behavioral analysis) who were weak and insecure. However, two superb novels, *The Caine Mutiny*<sup>1</sup> and *Mister Roberts*,<sup>2</sup> describe the destructive potential of weak and insecure fictitious commanders in positions of command. Each portrays an officer in command of a naval vessel who is so lacking in competence, confidence, and psychological integrity that he perceives his subordinates as adversaries. To alleviate their own insecurity, Captain Queeg and Captain Morton bullied, harassed, and threatened their junior leaders and their crews. To preserve their own integrity, junior officers and crewmen united to thwart their commanders but in ways that did not totally compromise the mission capabilities of their ships. But the commitment of the crews was less than wholehearted, and in one case led to the executive officer relieving his captain.

Sources: (1) Wouk H. *The Caine Mutiny*. New York: Dell; 1951. (2) Heggen T. *Mister Roberts*. New York: Houghton Mifflin; 1946.

## EXHIBIT 6-15

### THE DOOLITTLE COMMISSION REPORT

As a reserve officer, Brigadier General James H. Doolittle was a good choice to look into the postwar criticism of the officer corps, as his reserve status gave him distance and insulation from the politics of power. He had joined the US Army Air Service as a lieutenant in 1920. During the 1920s and 1930s he was an aviator of renown, having set several aviation records, earned a doctorate of science from the Massachusetts Institute of Technology, and won the Schneider, Bendix, and Thompson aviation trophies.

Recalled to active duty in 1940, then-Lieutenant Colonel Doolittle organized and led the first air attack on Japan in April 1942, just 4 months after the Japanese surprise attack on Pearl Harbor. He was awarded the Medal of Honor and promoted to brigadier general. He commanded the 12th Air Force in the US assault landings in North Africa in November 1942. In 1943 he commanded the Northwest Africa Strategic Air Force for the invasions of Sicily and Italy. In 1944 and 1945 he commanded the 8th Air Force conducting the daylight bombing attack on Germany. In short, he had over 15 years of military experience and was a commanding presence among aviation engineers and policy makers. He knew the military and yet was beyond it by virtue of his reserve status.

The complaints he was to investigate included arrogance and self-indulgence on the part of officers, indifference to and mistreatment of enlisted personnel, the existence of a caste system that gave privileges to officers but not to enlisted personnel, and unnecessary regimentation. His commission found the complaints for the most part to be well-founded, but applicable to only a few officers. It recommended significant reforms in the selection and training of officers and in officer–enlisted relationships. The Army ignored these recommendations but did make cosmetic changes such as eliminating officers' sabers and prescribing common uniforms for officers and enlisted personnel.

Source: US War Department. *The Report of the Secretary of War's Board on Officer–Enlisted Man Relations*. Washington, DC: The Infantry Journal Press; 1946.

Many citizens who served as enlisted soldiers in World War II resented officers' bullying, harassing, or self-serving behavior. When the war was over, these citizen-soldiers spoke out. Secretary of War Robert Patterson ordered an investigation of their complaints by a special board, which issued the Doolittle Report (Exhibit 6-15), addressing these issues.

The principal effect of the Doolittle Report was psychological, in large part because the substantive recommendations concerning respect for subordinates and support for leaders were ignored. Career officers and NCOs resented even the superficial reforms, and felt betrayed by the replacement in 1951 of the Articles of War with the Uniform Code of Military Justice (UCMJ). For instance, subtle differences in language concerning nonjudicial punishment for minor offenses were widely perceived as disempowering the company commander and his NCOs.<sup>5(p372),86</sup> The author heard numerous junior leaders in the US Army of 1948 to 1955 complain bitterly of how the senior leadership had left them helpless to coerce their troops, when actually the changes were superficial. Their attitudes reflected

the authoritarianism that permeated the military culture during World War II; earning security through subordinates' trust was often not an option leaders considered.

The tradition of threatening subordinates persisted for four decades after World War II because officers were used to it, and because many of them were insecure. Their insecurity derived from a number of factors. One was that more than 80% of the officers in the postwar US Army had not been officers before the war,<sup>87</sup> and it is reasonable to infer that some were uncertain about their ability to function in the role. Another was rapid technological change that some officers feared would outstrip their frames of reference. A third was a series of force reductions that compromised expectations about job security. The consequence was that from 1945 until the late 1970s many units had commanders who compensated for their insecurities by inducing anxiety in their subordinates.<sup>12,74</sup> Demand overload was routine, fear was the predominant emotion,<sup>74</sup> officers dodged responsibility, and lying was obligatory.<sup>12</sup> This authoritarian command climate



was common in units that suffered moral collapse in Vietnam between 1969 and 1972.<sup>18,25,75</sup> Vietnam was a case study of how authoritarianism, reassuring though it may be to its practitioners in the short run, does not work.

The opposite of authoritarianism and rule by fear is a mix of trust, respect, and empowerment of subordinate leaders. The author has interviewed officers in the US Army, US Navy, and US Marine Corps who have embraced this kind of leadership behavior. They report that it enormously enhances the efficiency and morale of the unit and the gratifications of command. Usually subordinates respond to this kind of leadership by committing all of their intellectual as well as physical resources to the mission. But it is a risky business. A leader gives up some of his power to intimidate his subordinates when he trusts and empowers them. He is still responsible for mistakes they make, and they are in a position to destroy his career if they do not trust him.

Leaders are most likely to try empowering leadership when they are certain that their superiors are on their side and are committed to helping them succeed. A confident and secure junior leader is not complacent, but he is psychologically able to afford to tell the truth, assign priorities, make tactical experiments, let subordinates try their wings, and accept responsibility. Though the official line is that every officer should behave thus, in reality only leaders who trust their superiors to take care of them will do it. It takes a psychologically secure commander to create a climate in which ethically effective leadership can flourish. One authoritarian anywhere in the chain of command introduces insecurity, dishonesty, and flight from responsibility in the echelons below him.

### *Supporting Leader Self-Maintenance*

One facet of the security commanders can provide for their subordinate leaders is moral support for their taking care of themselves. One of the changes in the culture of the US Army that took hold as a result of the Doolittle Report was renewed emphasis on the duty of a leader to take care of his troops before himself. Unfortunately, the “can do” mentality, combined with chronic demand overload and the military cultural conviction that anything worth doing is worth overdoing, resulted in self-denial becoming commonplace among leaders. Leaders’ health and welfare lost all ethical standing in military culture. Leaders would see that their troops got enough sleep, but not themselves; when

the troops had a training holiday, the leaders would work. To be sure, a corrective to their previous selfishness was needed, but this overreaction compromised leaders’ physical and mental health and imperiled the troops the leaders were supposed to be caring for.

Studies by the Walter Reed Army Institute of Research in the 1980s and early 1990s have demonstrated decrements in cognitive functioning associated with sleep deprivation. Particularly severe are losses in judgment and the ability to sustain cohesion—the characteristics most important for commanders, especially during combat.<sup>88–91</sup> Even during peacetime maneuvers in the 1980s and 1990s, “real men” never went to bed, and became almost nonfunctional.<sup>74(p30)</sup> It did not matter, because it was peacetime, and the leaders proved their points about their masculinity. Though some units developed sleep plans to assure that key personnel got at least 6 to 7 hours sleep during every 24-hour period, in many units the peacetime habits persisted into the Persian Gulf War, with potentially lethal effects. Those effects remained mostly potential because the ground war lasted only 4 days, but by the end many leaders were so sleep deprived that they were almost comatose.<sup>62</sup> The ability to go without sleep has been a criterion of manliness for more than 2,000 years.<sup>92,93</sup> But as the tempo of warfare has increased, sleep deprivation has led to military disasters, as shown in Exhibit 6-16.

Self-maintenance for leaders is an essential part of military ethics. It is a delicate part, because it requires a balance between the self-indulgence of rear echelon officers in the 1940s that the Doolittle Report criticized and the self-abnegation of combat leaders of the 1980s and 1990s. A leader’s subordinates are usually ready to accept his need to maintain himself so his faculties will be in working order. It is up to the leader’s commander to convince him that he supports his subordinate taking care of himself. A commander who makes his subordinate leaders afraid to be found asleep will soon be the cause of troops dying because his junior leaders’ judgment failed.

### *Guiding Sexual Behavior in Gender-Integrated Units*

In almost every culture men have developed elaborate systems to exclude women from military activities.<sup>94(pp51–54)</sup> These systems include chivalry, Muslim subjugation of women under religious law, 18th and 19th century Anglo-Saxon subjugation of women under civil law, and, in the past, the US

## EXHIBIT 6-16

### SLEEP DEPRIVATION AND COMMAND DECISIONS

The classic example of the impact of sleep deprivation is the Battle of Savo Island in August 1942. Five American and Australian cruisers and six destroyers, all equipped with radar, were guarding the approaches to the landing beaches on Guadalcanal. A Japanese force of approximately equal strength, but without radar, attacked at night and sank four cruisers while suffering negligible damage. The American crews, particularly the officers, had been at battle stations for several days and nights when it was not necessary, and were totally exhausted.<sup>1</sup> The extent of their incapacitation is evident in the behavior of the captain of one Allied cruiser who came groggily to the bridge to order his ship to cease firing, believing it was firing on friendly ships. His gunnery officer could not convince him that the ships were Japanese, but the captain finally did order firing resumed, saying, "Our ships or not, we've got to stop them."<sup>2</sup>

Sources: (1) Loxton B. *The Shame of Savo: Anatomy of a Naval Disaster*. Annapolis, Md: Naval Institute Press; 1994. (2) Lewis W. *The Battles of Savo Island, 9 August 1942 and the Eastern Solomons, 23–25 August 1942*. Washington, DC: Naval Historical Center, Department of the Navy; 1994.

Army's tradition of keeping female soldiers from combat roles. Though the ostensible moral purpose of these systems is to protect women from the horrors of combat (to include the risk of capture and rape), the apparent psychological purpose has been the protection of men's sense of masculinity.<sup>94</sup>(pp55–56) The "chief defining role for men in society has become that of warrior. Masculinity is, in fact, ephemeral, fragile, and dependent on women not being the same."<sup>94</sup>(p56)

The reality of military recruiting in the post-Cold-War era has been a dwindling number of people in the United States in the 18- to 21-year-old cohorts with the requisite aptitudes willing to serve in technologically complex armed forces.<sup>95</sup> To meet their recruiting goals, the services have needed women,<sup>96</sup> and the ethics of military culture has had to accommodate this change. Ethical tenets, even those that serve powerful psychological purposes, lose standing when they are too widely divorced from necessity.

The progressively expanding role of women in the armed forces has brought psychological distress to many male military personnel. After at least 4,000 years of male domination of armed combat, a single generation of men has had to bear the psychological weight of an ethical shift that deprives them of "a crucial identity which is uniquely theirs, a role which has been as male-defining as child-bearing has been female-defining."<sup>94</sup>(p56) The task of ameliorating their distress while encouraging female soldiers and preserving cohesion falls to the leaders of gender-integrated units. The most promising ways to support gender integration are those that

support racial integration—mutual respect, trust, and leadership behavior that focuses on military competence and the combat mission. This approach is ethically valid not because it is in any abstract or political sense "good," but because it meets the needs of personal, institutional, and operational constituencies—it works.

There are, however, new ethical, behavioral, and psychological problems in gender-integrated units that differ from those encountered in racial integration. Among these are sexual abuse, adultery, and homosexuality. All of these are punishable under the UCMJ or sanctionable under administrative regulations, but the application of both the Code and the regulations has been uneven and controversial.

**Sexual Abuse.** Sexual abuse in a military setting refers primarily to superiors using their broad influence over their subordinates' lives to force them to engage in sexual activities. Sexual abuse can occur between peers, but usually there is a power differential between the abuser and the victim. This behavior is the antithesis of honor and is at variance with most military personnel's view of "what's right." From a practical point of view it is much worse. It is manifestly disrespectful of subordinates whether they are the direct target of abuse or not. It creates a climate of fear and mistrust in the abuser's unit, and it makes the abuser someone who is detested rather than respected. These factors destroy vertical cohesion within the abuser's unit and also compromise the integrity of senior command for allowing such a person to hold a position of trust and authority. Rigorous proscription of sexual abuse is an essential component of military culture. It meets

the psychological needs of most male and female personnel as well as institutional needs for order.

Why do abusers engage in behavior that damages their units, demonstrates their untrustworthiness, and often leads to the destruction of their own lives and those of their families? Rosen et al, in a recent study of sexual abuse in the US Army, found that sexual harassment in US Army units is associated with weak peer bonding, poor vertical cohesion, heavy time pressure, low combat readiness, and substandard mission capability.<sup>97,98</sup> As the problems become more severe, the incidence of harassment tends to increase. These findings translate, in the cultural context used in this discussion, into lack of trust in comrades and leaders, poor command management of time and priorities, and lack of focus on mission-related activities. In a climate of job insecurity, rapid technological and procedural change, and seemingly habitual demand overload, some personnel will lapse into despair.

The solution is strengthened social supports, empowering leadership, and sensitivity of leaders to their subordinates' as well as the US Army's sense of "what's right." In the units in which sexual abuse was found to be most likely, personnel received not support, but injunctions not to abuse women. They were told they had to be respectful of the very people whom they perceived as being among the causes of their distress.<sup>97,98</sup> Some leaders, usually psychologically marginal, will succumb under such circumstances and sexually abuse subordinates. They are usually punished. But punishment, while it removes the people from the institution who were nominally the problem, does not solve the underlying systemic problem. The security and confidence senior personnel need if they are to respect, trust, and work productively with persons of the opposite sex must come from supportive leadership, not from stern admonitions.

**Adultery.** While few civilian jurisdictions consider adultery a crime, there are circumstances when adultery between service members, or between a service member and the spouse of another service member, could compromise good order and discipline. The most obvious example is a romantic relationship between a leader and a subordinate. The leader's subordinates almost always learn about such affairs, and even if the leader did not treat his lover with special consideration, the leader's trustworthiness is compromised.

When the lovers are one service member and the spouse of another of equal rank, the results can be bitterness and possible violence. When a service

member has an affair with the spouse of a member of higher or lower rank, the possibilities for abuse of power, favoritism, and blackmail are limitless. Proscription of such relationships is appropriate because it works to protect junior personnel.

**Homosexuality.** Homosexuality has been a part of human behavior at least since the beginning of recorded history, and attitudes toward it have varied. In the US armed forces since the end of World War II a triad of medical,<sup>99</sup> punitive,<sup>100</sup> and administrative regulations<sup>101,102</sup> has excluded, eliminated, or punished homosexuals. However, silent, non-practicing (or discrete) homosexuals served enlistments and even careers in the services. Military leaders defend exclusionary policies by asserting that homosexuals in the military make heterosexual men uncomfortable and fearful of being raped, act as catalysts for violence by drawing physical attacks on themselves, and impair unit cohesion. The US Code governing military policy states that the "presence in the armed forces of persons who demonstrate a propensity or intent to engage in homosexual acts would create an unacceptable risk to the high standards of morale, good order and discipline, and unit cohesion that are the essence of military capability."<sup>103</sup>

As noted earlier, cohesion is a process of affective bonding among the members of small primary groups, and across echelons between leaders and subordinates. Senior officers have had the courage to use, accurately, terms such as love and affection to describe the feelings service members in cohesive units have for one another. It is not sexual love, but fraternal love. Bonding is based on trust and respect earned during prolonged shared experiences characterized by challenge, stress, and group achievement. Affection of this kind among members of military units is ethically valid because it works; it strengthens each individual's ability to persevere in the face of adversity and to resist combat stress breakdown. But does the presence of homosexuals in military units adversely affect unit cohesion?

The evidence available to date is equivocal.<sup>97,104-107</sup> It suggests that fraternal bonding can occur in units composed of mixed sexes and mixed sexual orientations. It also indicates that such units can be fraught with mistrust, cliques, and hostility. The mediating factors may not be the sexual orientations of the members but the ethical climate and the quality of leadership in the unit. While the nature of the ethics and leadership most likely to foster bonding are well known, the degree to which they can over-

come centrifugal forces generated by challenges to group members' preexisting belief systems and attitudes toward homosexuality are unknown. Until more

complete information is available, it is the author's opinion that no definitive ethical statement should be made about homosexuality in the armed forces.

## CONCLUSION

The armed forces are in a rough business, a life and death business in which ethics make a difference. If a commander is incompetent, if a patrol leader lies, if a medic sells his medications on the black market, American soldiers are likely to die. The interdependence of members of a technologically complex armed force makes honorable conduct more vital than ever before. For a military person, honesty, integrity, trust, and respect are not empty clichés; they describe a way of doing military business that works.

In professional armed forces, authority is earned by demonstrated professional competence and dedication to subordinates' personal, professional, and familial welfare. Similarly, ethical values become relevant in supporting psychological readiness. In the post-Cold-War world, the personnel who fight in this year's intervention must be psychologically and physically ready to do it again next year. They need ethical systems that adapt to a broad range of missions and that facilitate rapid recovery from an unpredictable array of morally traumatic experiences. Rigid moral codes are not useful; they are not sufficiently adaptable to support soldiers in ambiguous situations.

Everyone involved with national security needs a military culture with coherent ethical values to play his role effectively. The National Command Authority depends on military ethics to assure that forces carry out their missions faithfully and without excess. Commanders of units from army to platoon depend on integrity in reporting so they can coordinate actions appropriately and allocate assets where they are most needed. Individual service members depend on situationally realistic ethical understandings to sustain them in the midst of moral chaos and to enable them to trust their leaders to bring them through their experiences.

There are many reasons why it is difficult to live by ethical principles in a military culture. Telling the truth can have unpleasant consequences when superiors demand reassuring answers. Military service imposes so many challenges that some people feel overwhelmed and conclude that they have no choice other than to cover their inadequacies with

deceit. Others, faced with demand overload that none of their superiors has the moral courage to control, see two alternatives: lie, or get out. Choosing the harder right is just that—hard.

It is hard, but not impossible. In spite of a contemporary civilian culture that is contemptuous of honor, indifferent to courage, and cynical about ethics, the armed forces of the United States entering the 21st century are succeeding in their dogged struggle to restore integrity to their culture. They are succeeding because senior officers are insisting on realistic missions and resources, intermediate commanders are finding the courage to set priorities and trust their subordinates, and junior leaders are taking care of their troops and building professionally competent teams. Members at all levels have regained a respect for and interest in the details of their profession. In the author's view, privates and junior enlisted leaders in the 1990s were more knowledgeable about their profession than were most field grade officers of the 1950s and 1960s.

It is important to remember that integrity flourishes in a climate of mutual trust and respect across ranks, and withers in a climate of insecurity and fear. A man who feels he is trusted will in most situations strive to be worthy; a man who is watched will get away with what he can. When a service member finds the courage to choose the harder right, he strengthens himself and the ethical climate in his unit. No ethical act takes place in a vacuum; others know about it, and take heart. Each time a leader empowers a subordinate he takes a risk, because he is the one responsible. If he is to take the risks that will build the confidence and competence of his unit, he needs the security of knowing his commander is supporting him. Commanders at each level are the arbiters of the ethical climate of their units. Their courage and integrity in setting priorities, caring for their service members and their families, and trusting their juniors sets the example their subordinates will follow. Thus honor, combat ethics, and military culture are the lifeblood of cohesion in the military and therefore of the ability of the military to perform its mission.



## REFERENCES

1. Shay J. *Achilles in Vietnam: Combat Trauma and the Undoing of Character*. New York: Simon & Schuster Touchstone; 1995.
2. Fromm E. *Man for Himself: An Inquiry Into the Psychology of Ethics*. Greenwich, Conn: Fawcett; 1947: 67.
3. Shay J, Munroe J. Group and milieu therapy for veterans with complex posttraumatic stress disorder. In: Saigh PA, Brenner JD, eds. *Posttraumatic Stress Disorder: A Comprehensive Text*. Boston: Allyn & Bacon; 1999: 391–413.
4. Thurman MR Lieutenant General. Vice Chief of Staff, US Army (1983–1987); Commander-in-Chief, Southern Command (1989–1990). Seven 4-hour interviews with author, 1993.
5. Hackworth DH. *About Face: The Odyssey of an American Warrior*. New York: Simon & Schuster; 1989: 59–61.
6. The Gulf War Syndrome: Pentagon now says chemicals may have harmed thousands. *Time*. 1996;148(28):33–35.
7. Kirkland FR. Soldiers and marines at Chosin Reservoir: Criteria for assignment to combat command. *Armed Forces Soc*. 1995;22(2)257–274.
8. Sorley LM. Doing what's right: Shaping the army's professional environment. In: Matthews LJ, Brown DE, eds. *The Challenge of Military Leadership*. Washington, DC: Pergamon-Brassey's; 1989: 130–134.
9. Mylander M. *The Generals*. New York: Dial Press; 1974: 211.
10. Sullivan GR. A new force for a new century. *Army*. 1984;44(5):24–26.
11. Kirkland FR. The gap between leadership policy and practice: A historical perspective. *Parameters*. 1990;20(3):50–62.
12. US Department of the Army. *Study on Military Professionalism*. Carlisle Barracks, Pa: US Army War College; 1970.
13. Kinnard D. *The War Managers: American Generals Reflect on Vietnam*. New York: Da Capo Press; 1991.
14. Kitfield J. *Prodigal Soldiers: How a Generation of Officers Born of Vietnam Revolutionized the American Style of War*. New York: Simon & Schuster; 1995.
15. Dunnigan JF, Macedonia RM. *Getting It Right: American Military Reforms After Vietnam to the Persian Gulf and Beyond*. New York: William Morrow; 1993.
16. US War Department. *General Regulations for the Army*. Philadelphia, Pa: M Carey & Sons; 1821: 13, 15, 20.
17. Coffman EM. *The Old Army: A Portrait of the American Army in Peacetime, 1784–1898*. New York: Oxford University Press; 1986: 194–197.
18. Hauser WL. *America's Army in Crisis: A Study in Civil–Military Relations*. Baltimore, Md: Johns Hopkins University Press; 1973.
19. Persons BS. *Relieved of Command*. Manhattan, Kan: Sunflower University Press; 1997: 23.
20. Taylor FW. *The Principles of Scientific Management*. New York: Harper; 1911.
21. Stouffer SA, Lumsdaine AA, Lumsdaine MH, et al. *The American Soldier. Vol. II: Combat and its Aftermath*. Princeton, NJ: Princeton University Press; 1949: 520–524.
22. Meyer EC, Ancell RM, Mahaffey J. *Who Will Lead? Senior Leadership in the United States Army*. Westport, Conn: Praeger; 1995: 66.

23. Ingraham L, Manning FJ. American military psychiatry. In: Gabriel RA. *Military Psychiatry: A Comparative Perspective*. Westport, Conn: Greenwood; 1986: 25–65.
24. Westmoreland WC. From the army of the '70s: A flawless performance. *Army*. 1970;20(10):11, 23–28.
25. Gabriel RA, Savage PL. *Crisis in Command: Mismanagement in the Army*. New York: Hill & Wang; 1978: 66.
26. Kirkland FR. Postcombat reentry. In: Jones FD, Sparacino LR, Wilcox VL, Rothberg JM, Stokes JW, eds. *War Psychiatry*. In: *Textbook of Military Medicine*. Washington, DC: Office of the Surgeon General and Borden Institute; 1994: 291–318.
27. Kirkland FR, Katz P. Combat readiness and the Army family. *Mil Rev*. 1989;69(4):63–74.
28. Marlowe DM, ed. *Unit Manning System Field Evaluation*. Technical Report No. 5 (ADA207193). Washington, DC: Walter Reed Army Institute of Research; September 1987.
29. Bassford C. *The Spit-Shine Syndrome: Organizational Irrationality in the American Field Army*. Westport, Conn: Greenwood Press; 1988.
30. Hawkins JP. *Army of Hope, Army of Alienation: The American Army Communities of Cold War Germany*. Westport, Conn: Praeger; 2000.
31. Richardson WR. Commanding General, US Army Training and Doctrine Command (1983–1986). Personal Communication, 8 October 1997.
32. Clark A. *The Donkeys*. New York: Universal Publishing; 1965.
33. Dixon NF. *On the Psychology of Military Incompetence*. London: Cape; 1976.
34. Ruhe WJ. *Slow Dance to Pearl Harbor: A Tin Can Ensign in Prewar America*. Washington, DC: Brassey's; 1995: 171–180.
35. Friedenberg EZ. *Coming of Age in America: Growth and Acquiescence*. New York: Random House; 1965: 47–48.
36. Faith JC. The overcontrolling leader: The issue is trust. *Army*. 1997;47(6):7–12.
37. Falk RA, Kolko G, Lifton RJ, eds. *Crimes of War: A Legal, Political-Documentary, and Psychological Inquiry Into the Responsibility of Leaders, Citizens, and Soldiers for Criminal Acts in Wars*. New York: Random House; 1971: 141–161.
38. Kirkland FR, Ender MG, Gifford RK, Wright KM, Marlowe DM. The human dimension in force projection: Discipline under fire. *Mil Rev*. 1996;76(2):57–64.
39. Scales RH Jr. *Certain Victory: The US Army in the Gulf War*. Washington, DC: Brassey's; 1994.
40. Crowell L. The anatomy of Just Cause: The forces involved, the adequacy of intelligence, and its success as a joint operation. In: Watson BW, Tsouras PG, eds. *Operation Just Cause: The US Intervention in Panama*. Boulder, Colo: Westview Press; 1991: 67–104.
41. McConnell M. *Just Cause: The Real Story of America's High-Tech Invasion of Panama*. New York: St Martin's Press; 1991: 31.
42. Flanagan EM. *Battle for Panama: Inside Operation Just Cause*. Washington, DC: Brassey's; 1993: 40–41, 209–214.
43. Donnelly T, Roth M, Baker C. *Operation Just Cause: The Storming of Panama*. New York: Lexington Books, 1991: 98, 358–390.
44. Caputo P. *A Rumor of War*. New York: Holt Rinehart & Winston; 1977: 106–110.

45. Grossman DA. *On Killing: The Psychological Cost of Learning to Kill in War and Society*. Boston: Little Brown & Co; 1995.
46. Sinnreich RH. To stand and fight. *Army*. 1997;47(7):15–19.
47. Gruner E. What code? Or, no great escapes: The Code of Conduct and other dreams of resistance. *Armed Forces Soc*. 1993;19(4):599–609.
48. Groll-Ya'ari Y. Toward a normative code for the military. *Armed Forces Soc*. 1986;12(2):457–472.
49. Marshall SLA. *Men Against Fire: The Problem of Battle Command in Future War*. Gloucester, Mass: Peter Smith; 1978.
50. Smoler F. The secret of soldiers who didn't shoot. *Am Heritage*. 1989;40(2):36–45.
51. Kirkland FR, Halverson RR, Bliese PD. Stress and psychological readiness in post-Cold War operations. *Parameters*. 1996;26(2):79–91.
52. Gunston B, Anderton DA, Cooper B; Batchelor J, illus. *Air Power: A Modern Illustrated Military History*. New York: Exeter Books; 1979: 302.
53. Wegg J. *General Dynamics Aircraft and Their Predecessors*. Annapolis, Md: Naval Institute Press; 1990: 233–238.
54. Friedman N. *US Cruisers: An Illustrated Design History*. Annapolis, Md: Naval Institute Press; 1984: 479.
55. Friedman N. *US Destroyers: An Illustrated Design History*. Annapolis, Md: Naval Institute Press; 1982: 423.
56. Santoli A, ed. *Everything We Had: An Oral History of the Vietnam War by Thirty-Three American Soldiers Who Fought It*. New York: Ballantine Books; 1981: 23ff,57ff,80–81,94,101ff,121ff,136–137,185ff.
57. Lanning ML. *The Only War We Had: A Platoon Leader's Journal of Vietnam*. New York: Ivy Books; 1987.
58. McDonough JR. *Platoon Leader*. New York: Bantam Books; 1985.
59. Estep J. *Comanche Six: Company Commander, Vietnam*. Novato, Calif: Presidio Press; 1991: 51ff, 64, 91ff, 244.
60. Kelly J. *DMZ Diary: A Combat Marine's Vietnam Memoir*. Jefferson, NC: McFarland & Co; 1991: 50ff, 164–165.
61. Kirkland FR, Ender MG. *Analysis of Interview Data From Operation Just Cause*. Washington, DC: Division of Neuropsychiatry, Walter Reed Army Institute of Research; June 1991.
62. Taylor TT. *Lightning in the Storm: The 101st Air Assault Division in the Gulf War*. New York: Hippocrene Books; 1994.
63. Jones FD. Psychiatric lessons of war. In: Jones FD, Sparacino LR, Wilcox VL, Rothberg JM, Stokes JW, eds. *War Psychiatry*. In: *Textbook of Military Medicine*. Washington, DC: Office of the Surgeon General and Borden Institute; 1995: 1–33.
64. Jones FD. Chronic post-traumatic stress disorders. In: Jones FD, Sparacino LR, Wilcox VL, Rothberg JM, Stokes JW, eds. *War Psychiatry*. In: *Textbook of Military Medicine*. Washington, DC: Office of the Surgeon General and Borden Institute; 1995: 409–430.
65. Marlowe DH. The human dimension of battle and combat breakdown. In: Gabriel RA, ed. *Military Psychiatry: A Comparative Perspective*. Westport, Conn: Greenwood; 1986: 7–24.
66. Shils EA, Janowitz M. Cohesion and disintegration in the Wehrmacht in World War II. *Public Opin Q*. 1948; 12:280–315.
67. Kirkland FR. Assessing COHORT. *Army*. 1990;40(5):44–50.

68. Koshes RJ, Young SA, Stokes JW. Debriefing following combat. In: Jones FD, Sparacino LR, Wilcox VL, Rothberg JM, Stokes JW, eds. *War Psychiatry. In: Textbook of Military Medicine*. Washington, DC: Office of the Surgeon General and Borden Institute; 1995: 271–290.
69. US Department of the Army. *Leaders' Manual for Combat Stress Control*. Washington, DC: DA; 1994. Field Manual 22-52.
70. Belenky G, Martin JA, Marcy SR. After-action critical incident stress debriefings and battle reconstructions after combat. In: Martin JA, Sparacino LR, Belenky G, eds. *The Gulf War and Mental Health: A Comprehensive Guide*. Westport, Conn: Praeger; 1996: 105–114.
71. Pecano J, Hickey D. Stress debriefings following death from unexploded ordnance. In: Martin JA, Sparacino LR, Belenky G, eds. *The Gulf War and Mental Health: A Comprehensive Guide*. Westport, Conn: Praeger; 1996: 125–134.
72. Dinneen MP. Rapid interventions after a disaster at sea. In: Martin JA, Sparacino LR, Belenky G, eds. *The Gulf War and Mental Health: A Comprehensive Guide*. Westport, Conn: Praeger; 1996: 135–144.
73. Arendt H. *On Violence*. New York: Harcourt Brace World; 1970.
74. Hackworth DH. *Hazardous Duty: America's Most Decorated Living Soldier Reports From the Front and Tells It the Way It Is*. New York: Avon Books; 1996.
75. Cincinnatus [pseud]. *Self-Destruction: The Disintegration and Decay of the United States Army During the Vietnam Era*. New York: Norton; 1981.
76. Atkinson R. *The Long Gray Line*. Boston: Houghton Mifflin; 1989.
77. Sheehan N. *A Bright Shining Lie: John Paul Vann and America in Vietnam*. New York: Random House; 1988.
78. US Department of the Army. *Fighting Future Wars*. New York: Brassey's; 1994. Field Manual 100-5. Para 2-10 to 2-13.
79. Bowden M, Tobia P. Blackhawk down: An American war story. *The Philadelphia Inquirer*. November 16–December 14, 1997.
80. Stanton MN. A riot in Wanwaylen: Lessons learned. *Army*. 1994;44(12):24–30.
81. Luvaas, J. Buna: 19 November 1942–2 January 1943. In: Heller CE, Stofft WA, eds. *America's First Battles, 1776–1965*. Lawrence, Kan: University of Kansas Press; 1986.
82. Asprey RB. *At Belleau Wood*. Denton: University of North Texas Press; 1996.
83. Mallonee RC. Mallonee RC II, ed. *The Naked Flagpole: Battle for Bataan. From the Diary of Richard C. Mallonee*. San Rafael, Calif: Presidio Press; 1980.
84. McIntyre WD. *The Rise and Fall of the Singapore Naval Base, 1919–1942*. Hamden, Conn: The Shoestring Press/Archon Books; 1979.
85. US War Department. *Report of the Secretary of War's Board on Officer–Enlisted Man Relations*. Washington, DC: Bureau of Public Relations; May 1946.
86. Dupuy RE. *The Compact History of the United States Army*. New York: Hawthorn Books; 1956: 272–273.
87. Weigley RF. *History of the United States Army*. Bloomington: Indiana University Press; 1984: 599–600.
88. Newhouse PA, Belenky G, Thomas M, Thorne D, Sing H, Fertig J. The effects of d-amphetamine on arousal cognition and mood after prolonged total sleep deprivation. *Neuropsychopharmacol*. 1989;2:153–164.



89. McCann UD, Penetar DM, Shaham Y, et al. Sleep deprivation and impaired cognition: Possible role of brain catecholamines. *Biol Psychiatry*. 1992;31(11):1082–1097.
90. Newhouse PA, Penetar D, Fertig J, et al. Stimulant drug effects on performance and behavior after prolonged sleep deprivation: A comparison of amphetamine, nicotine, and deprenyl. *Mil Psychol*. 1992;4:207–233.
91. Manning FJ, Ingraham LH. Continuous operations: Who melts, when and why? *Field Artillery J*. 1981;49(3):13–18.
92. *The Holy Bible, King James version*. Matthew 26:38–45.
93. Plato. Symposium. In Hamilton E, Cairns H. *Plato: The Collected Dialogues*. Joyce M, trans. Princeton, NJ: Princeton University Press; 1961.
94. Stiehm JH. Women and the combat exemption. *Parameters*. 1980;10(2):51–59.
95. Segal DR, Bachman JG, O'Malley PM. Propensity to serve in the US military. *Armed Forces Soc*. 1999;25(3):407–428.
96. Kitfield J. Front and center. *Natl J*. 1997;29(43):2124–2129.
97. Rosen LN, Durand DB, Bliese PD, Halverson RR, Rothberg JM, Harrison NL. Cohesion and readiness in gender integrated combat service support units: The impact of acceptance of women and gender ratio. *Armed Forces Soc*. 1996;22(4):537–553.
98. Rosen LN, Martin L. Sexual harassment, cohesion, and combat readiness in US Army support units. *Armed Forces Soc*. 1997;24(2):221–244.
99. US Department of the Army. *Standards of Medical Fitness*. Washington, DC: DA; 1998. Army Regulation 40-501.
100. US Department of the Army. *Manual for Courts Martial*. Washington, DC: DA; 1969. Miscellaneous Publication 9.
101. US Department of the Army. *Enlisted Personnel*. Washington, DC: DA; 1996. Army Regulation 635-200, Para 15-1 to 15-4.
102. US Department of the Army. *Regular Army and Army Reserve Component Enlistment Program*. Washington, DC: DA; 1995. Army Regulation 601-210, Para 4-24(g).
103. Policy concerning homosexuality in the armed forces. General Military Law, Armed Forces, 10 USC Sect 654 (2000).
104. Devilbiss NG. Gender integration and unit deployment: A study of GI Joe. *Armed Forces Soc*. 1985;11:523–552.
105. US Army Research Institute. *Women Content in Units Force Development Test (MAXWAC)*. Alexandria, Va: US Army Research Institute; 1972.
106. Finch M. Women in the military. In: Friedland JE, Gilroy G, Little RD, Sellman WS. *Professionals on the Front Line*. Washington, DC: Brassey's; 1996: 246–255.
107. Sarkesian SG, Williams JA, Bryant FB. *Soldiers, Society, and National Security*. Boulder, Colo: Lyn Rienner; 1995: 81–84.



# Chapter 7

## THE MILITARY AND ITS RELATIONSHIP TO THE SOCIETY IT SERVES

NICHOLAS G. FOTION, PhD<sup>\*</sup>

---

### INTRODUCTION

#### THEORIES CONCERNING THE MILITARY–SOCIETY RELATIONSHIP

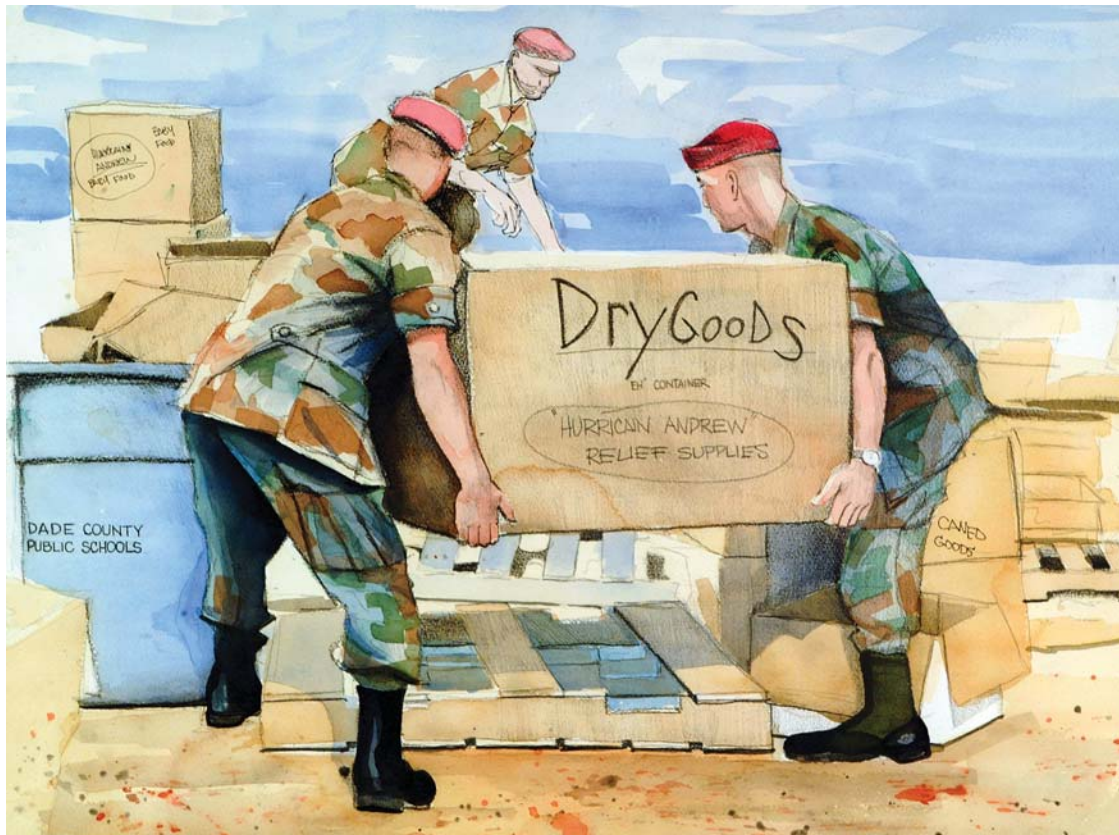
(Classic) and Extended Separatism  
Paternalistic Separatism  
Identicalism  
Fusionism

#### ASSESSING THE MILITARY–SOCIETY RELATIONSHIP THEORIES

Is (Classic) Separatism Feasible in a Democracy?  
Modern Democracies and Paternalistic Separatism  
Can Identicalism Be Implemented?  
Fusionism and the Future

### CONCLUSION

<sup>\*</sup>*Professor, Department of Philosophy, Emory University, Atlanta, Georgia 30322; formerly, Fulbright Lecturer, Philosophy Department and Medical School, Yonsei University, Seoul, Korea; and Visiting Professor, Department of Philosophy and Fine Arts, US Air Force Academy, Colorado Springs, Colorado*



Peter G. Varisano

*Dry Goods*

Florida, 1992

Master Sergeant Varisano (US Army, Retired) has depicted Army activities in the Persian Gulf and Somalia, as well as this artwork showing relief efforts after Hurricane Andrew in Florida. Efforts such as these are indicative of the relationship between the military and the society it serves, the focus of this chapter. Available at: <http://www.army.mil/cmh-pg/art/A&I/AVOP-0698.htm>.

Art: Courtesy of Army Art Collection, US Army Center of Military History, Washington, DC.



## INTRODUCTION

The question “What is the proper relationship between the military and the rest of society?” has always been of interest to those who seriously think about war and the power inherent in the military. Indeed, historically large but idle peacetime militaries have been seen as a threat to civilian governments. In the past, military establishments were generally allowed to wither soon after war ended. Should new war threats develop, there always seemed to be enough time to reinvigorate them. After World War II, the emergence of communism as a global threat changed the picture so that military establishments came to be powerful not just during war but during peacetime as well. Today, with the availability of a wide variety of fast-strike weapons that take years to develop, build, and deploy, the luxury of not having

a strong military in place during peace is no longer affordable. Modern nations have to “come as you are” to war.<sup>1(p5)</sup> And if they are not “dressed” properly, they lose. It’s as simple as that.

So to be ready for modern war the military has to be there in strength all the time. Thus, a large part of the question about how the military and the rest of society should deal with one another has to do with the possibility that the military’s strength can be aimed not only externally toward potential and actual enemies but internally toward the society that sponsors it. The threat comes not just, or even especially, from a direct military takeover, but also from the tendency the military has to control politics, industry, and even society as a whole in both subtle and not so subtle ways.

## THEORIES CONCERNING THE MILITARY–SOCIETY RELATIONSHIP

There are a number of ways to “manage” the military so as to maximize its ability to defend the country while minimizing its influence on civilian affairs. These ways are explored in the discussions of (Classic) and Extended Separatism (isolating the military from the political sphere of the society it serves), Paternalistic Separatism (isolating the military from society in general, but allowing the military leadership to explain military things to a civilian society that it might not otherwise understand), Identicalism (making the military more like the society it serves through vastly increased interaction between the two), and Fusionism (isolating the military in terms of maintaining military values while at the same time increasing conversation and contact between the military and the general society), which form the bulk of this chapter. Maintaining the balance between military and civilian spheres of interest is vital to the survival of any democracy. If the scales tip too heavily to the military side, a society is vulnerable to the forces within itself. But if the scales tip too heavily to the civilian sphere, opportunistic countries will take action. Thus examining these theories about the military–society relationship is not an esoteric exercise for the philosophers among us. Rather it is a necessary requirement for any democracy that wishes to remain so. The remainder of this chapter will first delineate these four theories, then assess their feasibility in a democracy. The discussion begins with Separatism, which is parenthetically described as Classic to distinguish it from a later version.

### (Classic) and Extended Separatism

Separatism is one theory about how to keep the military under control, and at the same time make certain it does its job properly. Traditionally, separatists believe that as an institution the military should be isolated from the political sphere of the society it serves, if for no other reason than that it can then devote its full attention to its war-making tasks. The last thing one should want is for the military to be distracted by having it heavily involved with politics and with various social movements and issues.<sup>2(pp723–724)</sup> The issue of distraction aside, separating the military from the political sphere helps keep the latter from becoming militarized. By letting civilians make social and political decisions, and keeping the military busy preparing for and fighting wars, the negative influences the military might have on society are supposedly kept at a minimum. Similarly, the negative influences of the civilian sector interfering with strictly military activities might also be avoided.

Some of the dangers of letting the military play important roles in social policy are expressed by Jerome Slater in the following passage.

Thus, even if one wished to avoid the pejorative connotations of the term “militarism,” it is evident that as a general rule the military, naturally enough, tend to place greater emphasis on military considerations relative to political ones in foreign policy than do their civilian counterparts, and that this structural bias substantially influences policy out-

comes, given the military's control over much of the information and intelligence that form the basis of policy, the extent of the institutionalized participation of the armed forces in the policy-making process within the executive branch, and the weight their presumed expertise has given their views with presidents, Congress, and public opinion.<sup>3(p753)</sup>

There are other dangers that separatists maintain their theory avoids. Suppose, more or less, that the US military had become associated with one of the major political parties. Further suppose that as a result high-ranking officers regularly spoke to political rallies, made other public statements, and openly gave money on behalf of their favorite party. Although the military would flourish during those years when its party was in power, things would be different when the opposition party took over. What was a feast could easily become a famine. But such ups and downs, the argument continues, are neither good for the military nor the nation it serves. Therefore, it is better for the military to maintain strict neutrality when it comes to party politics. According to this separatist doctrine, individuals in the military could still express their preferences in the privacy of their home, amongst friends, and in the polling booth but, as a matter of policy, they should not express these preferences in a public forum.

A related argument gives us the next major reason in favor of separatism, that is, that military folk are not, by and large, trained at playing the political game, especially on the level of making high-policy decisions. Reichart and Sturm speak to this point in their characterization of separatist thinking.

Normal career patterns do not look towards such a role; rather, they are—and should be—designed to prepare officers for competent command of forces in combat or at least for the performance of the complex subsidiary tasks that such command requires. Half-hearted attempts at irregular intervals in an officer's career to introduce him to questions of international politics produce only superficiality and presumption and an altogether deficient sense of the real complexity of the problems facing the nation. It may be true that experience in helping to make policy would enhance an officer's appreciation of such problems, but the costs and perils of such an education are too great.<sup>2(p724)</sup>

Huntington, in his famous *The Soldier and the State*, summarizes many of these separatist thoughts as follows.

Politics deals with the goals of state policy. Competence in this field consists in having a broad awareness of the elements and interests entering into a decision and in possessing the legitimate authority to make such a decision. Politics is beyond the scope of military competence, and the participation of military officers in politics undermines their professionalism, curtailing their professional competence, dividing the profession against itself, and substituting extraneous values for professional values. The military officer must remain neutral politically. "The military commander must never allow his military judgment to be warped by political expediency."<sup>4</sup> The area of military science is subordinate to, and yet independent of, the area of politics. Just as war serves the ends of politics, the military profession serves the ends of the state. Yet the state must recognize the integrity of the profession and its subject matter. The military has the right to expect political guidance from the statesman. Civilian control exists when there is this proper subordination of an autonomous profession to the ends of policy.<sup>5(pp71-72)</sup>

Before articulating the last major reason in support of separatism, it is useful to speak of the extended version of that position. The position described so far can be called narrow (or classic) separatism. The extended version, in contrast, speaks not just to the military's relationship to the political sphere but to the society as a whole. Extended separatism is more an "ideal" or possible position rather than one that many people hold in all its parts. Still, it is important to articulate what the "ideal" is so as to appreciate certain variations from that ideal that are actually held by some people.

Roughly speaking, extended separatism says that for a variety of reasons the military as an institution needs to separate itself in certain ways not just from the society's political institutions but from all (or most) of its institutions. Consider the following: business/industry, the mass media, law, medicine, academia, religion, and labor. Extended separatism argues for two strategies in dealing with almost all of these institutions. The first is to keep them at arm's length from the military. Recognizing that complete separation is impossible, separatists argue for doing the best we can to keep the points of contact between these institutions and the military at a minimum. The second is to practice a policy of convergence.<sup>6</sup> With this policy the military learns to perform many civilian tasks (eg, bookkeeping, medicine, computer repairs). There is convergence here because both the civilian and the military sectors perform these same tasks.<sup>7</sup> But there is also separatism because once the military masters these tasks, it performs them independently of those who

perform them in the civilian sector. It does them on its own.

Consider in particular how extended separatists in the military might view what the proper relationship should be between the military on the one side and business and industry on the other. From the military's perspective what goes on in business and industry is "foreign affairs." The emphasis in these institutions is not on serving the community although the rhetoric might indicate otherwise ("We are here to serve you" as salespeople often say). Rather, it is on the bottom line, and on the individual. Individuals go into business for themselves to make money, gain power, and perhaps fame. To gain these ends business people must exhibit virtues that to some extent overlap those found in the military. They must be diligent, have perseverance, be knowledgeable, flexible, and imaginative. But the goals of the two institutions, business and industry on the one side and the military on the other, are so different that in reality they generate two different clusters of virtues. Consider a list of military virtues that focuses on just those that business/industrial institutions give only lip service to at best: bravery, loyalty, obedience, cooperation, willingness to sacrifice for the benefit for the group, and honesty.

From the point of view of separatist thinking these differences in ethical outlook suggest the final reason for justifying this position. The argument behind that reason goes like this. It is difficult to inculcate military personnel with the cluster of virtues associated with military activity. Constant attention is required so that these virtues (ie, habits of appropriate behavior and attitude) become internalized by military personnel. More than that, it is necessary that personnel be placed in an environment that supports and encourages proper moral development. Given that the society as a whole, and the institutions of business and industry in particular, do not give strong support to the military virtues, and indeed may directly and indirectly undermine or corrupt many of them, it is best to segregate military personnel from the rest of the society as much as possible.<sup>8</sup>

This same argument applies to contact with some of the other institutions in the society, such as academia. The virtues encouraged within academia may very well be noble in their own way, but they are quite different from those found in the military. Courage, loyalty, and obedience do not have the status of primary virtues in academia as they do in the military. On the other side the primary academic virtues of diversity, curiosity, and independence do not receive "star" status in the military. Academia

may not "corrupt" those in the military the way perhaps business and industry sometimes do, but it surely distracts them by discouraging the development of such virtues as loyalty and obedience. It is, of course, impossible to segregate the military completely from academia and the rest of society. But, according to separatist doctrine, a significant amount of such segregation is certainly necessary if military personnel are to stay in focus.

So separatism, especially in its extended version, would approve of those organizational systems and practices that would keep military personnel on all levels separated from the rest of society. Toward its separatist ends it would thus approve of convergence in the form of billeting personnel on base rather than in the community, isolating military personnel on base when they serve overseas, and also having the military develop its own schools, playgrounds, churches, hospitals, shopping facilities, etc. It would encourage the military to do whatever it can to make those in the military feel as if they belong to a tight, narrowly focused *military* community.<sup>7(p55)</sup>

Many of these classic and extended separatist thoughts can be made concrete by imagining that we have access to the musings of an archetypical separatist senior officer. Let us call this imaginative exercise a candid self-portrait because we are to suppose this officer is simply privately reflecting on his views without any concern about what others might think. It is as if he is simply letting his thoughts wander in a free-association exercise. We will call our fictional officer General Separon. These then are the General's thoughts:

Sherman was right when he spoke after the Civil War about Washington being the center of intrigue, gossip and slander<sup>7</sup> and that we ought to keep aloof from that kind of stuff. We don't know how to play the political game well. But more than that, playing it distracts us from what we are supposed to do. Besides, if politicians see us trying to influence them, they will turn around and think that they can influence us in how to run wars. Scheming politicians should stick to their knitting; we should stick to ours. Actually we ought not to get too close to the rest of society either. Others go to work everyday to make ends meet or to get rich. Either way they are thinking mainly about themselves. We in the military are different. We have an important mission to perform. We have to train so that when a war starts we are ready to fight as a team for the good of society. We can't afford to be too much like them—to get soft and self-indulgent. If we do that, we'll be dead and our mission will not get accomplished.

## Paternalistic Separatism

We will return to the separatist position in due time in order to assess it. For now we turn to the second theory that attempts to tell us how the military and the society should relate to one another. It is difficult to know what to call this theory in part because it is not one that many people openly proclaim as their own. It could be called paternalistic separatism or perhaps manipulative separatism. Rather arbitrarily, it will here be labeled paternalistic separatism.

This theory differs from narrow or extended separatism by arguing that the modern military cannot avoid at least some significant contact with the various institutions in the society. Yet it goes on to argue in typical separatist ways that it is still important to keep the military separated from the rest of society as much as possible.

But how can the military be in significant contact with the rest of society and at the same time be separated from it? The version of paternalistic separatism most compatible with the American society does it as follows. It grants, at least officially, that the military is subservient to the will of the society—in particular the will of those elected officials who Constitutionally direct the military. Yet it says that the military has an understanding of military matters that others in a liberal society are not likely to have.

This means that military leadership has a duty to explain to the society such things as the need for a new weapon system or the essence of a serious threat posed by a potential enemy. Further, those in military leadership roles must explain things in ways that will convince the society of the truths understood by the military—but not necessarily understood well by those who do not deal with military matters on a daily and professional basis.

Of necessity these explanations cannot always be “objective.” Indeed, they will tend to be more persuasive or even propagandistic. An example of this way of communicating with those in government and the society at large during the Cold War was an annual Pentagon publication titled *Soviet Military Power*<sup>10</sup> (published from 1981 through 1988). These publications consistently portrayed Soviet military power (eg, the quality and number of its missiles, airplanes, submarines, surface ships, tanks, artillery, and so forth) in a “worst case scenario” setting. In fact, they seemed to go beyond such a portrayal insofar as they contained numerous inaccuracies.<sup>11</sup>

Even so, according to the paternalistic separatist theory, the persuasive nature of these and other documents, and still other presentations made by the military, is still appropriate because it always claims to have the interest of the society at heart. What paternalism literally means, after all, is that the father (the military) should care for the needs of his children (the people). According to this doctrine, then, so long as the military has the society’s interest at heart, not its own, it is doing its duty in taking the steps necessary to persuade the government leaders to make the “right” decisions.

Other activities of the military also fall into the paternalistic mold. For example, “black (ie, secret) budget” buying of military equipment serves two purposes. It keeps potential enemies from knowing what the United States is doing in the way of future weapon systems. But it also protects the military from premature criticism at home for creating highly controversial but, possibly very useful, military equipment. So the military chooses to prevent the free flow of information for the “good of the nation.”

Of course those who do this shielding do not represent the whole of the military. Largely this paternalistic task is left to certain political and business oriented higher ranking officers—a military elite. According to paternalistic separatism this leaves the rest of the military establishment in position to take a classic separatist stance. So the overall paternalistic separatist position is one that realistically allows, and even encourages, some interaction with the rest of society. Still, it keeps these interactive relationships limited to the few; and keeps these relationships at arm’s length by the paternalistic stance inherent in the position. That is, those who come into contact with the outside are urged to do so with a certain attitude that supposedly keeps them from getting too close to those with whom they are interacting.

It is as if the private thoughts of General Paterson, who is our fictional archetypical advocate of paternalistic separatism, run along the following path. Notice how his thoughts overlap Separon’s only up to a point.

We military leaders are trying as best we can to ensure the military institution does not become soft and liberal like the rest of the society. That kind of life might be good for the majority. But the military can’t afford to live that way. We have our own separate military ethic or way of life to sustain. Without it we would not be ready to fight when war starts. Still, a few of us, certain key members of the military elite, must unfortunately interact



with society. But these contacts should be made only up to a point by the elite few; and only in certain ways. In particular our contacts will be paternalistic in nature so that, if necessary, we will tell benevolent lies to the society for its own good. By doing so we serve the military by protecting the rest of that establishment from the society's 'corrupting' influences. We act like buffers that keep them and us apart. Our carefully nuanced dealings with the society at large free the rest of the military establishment to do its own thing—to do its duty of protecting the society from outside aggression.

## Identicalism

On a continuum of the amount of interaction permitted or encouraged, paternalistic separatism, although basically a separatist doctrine, permits more interaction than classic separatism. Before discussing fusionism, the next theory on the continuum, it is useful to discuss identicalism, a theory even more radically interactionist than fusionism. Identicalism is a theory that few if any thinkers within the military are very fond of, but one that needs to be discussed in order to help us better understand fusionism. That is, fusionism is better understood when it is viewed as bracketed by paternalistic separatism on the one side and identicalism on the other.

Identicalism starts with the general insight that we tend to be suspicious of whatever is different from us. If some foreigners move into the neighborhood we tend to keep them at arm's length until we see just how weird they are measured against standards with which we are familiar. If these foreigners *are* different and actually take pride in their differences, our suspicions about them tend to increase. It seems, at least for some, that is how it is with the military. Those in the military show they are different in how they speak about themselves, the language they use, the way they dress, the way they behave, the work they do, and even in terms of where they live. It is no wonder that as an institution the military has an uneasy relationship with the rest of society—an uneasy relationship that becomes evident especially when some military scandal surfaces in the media.

Identicalism aims to change this relationship by making the military more like the society it serves. It can do this by making the society more like the military (eg, as in Sparta) or the military more like the society. Huntington seemed to have the former option in mind in 1957 when he published *The Soldier and the State*. At that time he thought he saw a

conservative trend emerging from various influences in our society.

All these disparate developments hardly made up a coherent intellectual movement. Nonetheless, they were signs of a reexamination of American society and American values from a more conservative viewpoint. Their significance for civil-military relations was that in due course they might result in widespread acceptance by Americans of values more like those of the military ethics. Present in virtually all the strands of the new conservatism were a stress on the limitations of man, an acceptance of institutions as they were, a critique of utopianism and 'solutionism,' and a new respect for history and society as against progress and the individual.<sup>5</sup>(pp458–459)

Although Huntington evidently hoped and thought two or so generations ago that a new conservatism would emerge by the end of the 20th century, his hopes were never realized. It is true that in the 1980s and 1990s there was a reemergence of conservatism focused on an increased sense of family values, a lesser dependence on governmental assistance, and to some extent increased sensitivity to group as against individual values. But there is little to suggest in this renewed trend to conservatism that the society as a whole is giving up on individualism as it manifests itself in the demand for individual rights, career options for the individual, and a sense of the importance of individual identity. It seems, therefore, that although identicalism could in theory become a reality by making the society more like the military, it is more likely to be realized the other way around.

What might the military-joins-the-society version of identicalism look like? And what arguments are there in favor of this theory? This version of identicalism argues that the military fools itself when it insists that it needs a separate "corporate" ethic in order to allow it to function effectively as a military institution. To be sure, some virtues such as courage, loyalty, and obedience need to be emphasized more when people perform military tasks as against when they perform civilian ones. But, identicalism argues, ordinary citizens can be taught these virtues when they join the military without forcing them to change their whole sense of personal identity. That is, they can become effective in doing their work within the military context without foregoing their identity as free citizens of the society. They can serve in the military much as other citizens do when they perform everyday civilian tasks.

According to identicalism, then, what the military should strive for is to make military personnel no different in their outlook toward themselves (and in the outlook people have toward them) from those working for IBM (International Business Machines), General Motors, Prudential, a local grocery store, or for themselves. Indeed, the argument continues, modern “warriors” perform many engineering, computer, electronic, and other tasks that are quite similar to those performed by their civilian counterparts. The jobs an increasing number of military personnel perform are less uniquely militarily professional and more occupational in nature than they were in the past.<sup>12</sup> As the military “tail” (of occupational professionals) grows longer, and fewer and fewer “warriors” actually perform warrior roles, there is less and less reason to pretend that the military needs to be separated from the rest of society to get its various missions performed properly.

In general, then, identicalism encourages vastly increased interaction between the military and the rest of society when compared to the past. This means favoring such policies as having military personnel live off base, having children of military personnel go to public schools, making many military bases more accessible to the public than they are now, sending more military personnel to schools and universities outside the military (even to the point of closing down the military academies), being more open with the mass media, enlarging and improving the reserves (because they have a closer connection to the society than do regular military units),<sup>13</sup> hiring still more civilians to do work on military bases, and so on. It also means involving the military in nontraditional community tasks such as interdicting drugs, building roads, fighting fires, restoring wetlands, and controlling inner-city crime.<sup>14(p146)</sup> In this spirit, Eitelberg comments:

Indeed, the political advantages of using the military as an agent of social change are clear; if advocates of a larger force can claim that it is a benefit to society, that dollars spent on the military can equally satisfy social needs, they are better equipped to stave off some of the budget cuts.<sup>14(p145)</sup>

According to identicalism, the end result of all these policies is that the society will come to understand, and be more sympathetic with, the military than it is now. The society will see, through familiarity, what the military is up to and thus have a decreased tendency to be suspicious of its intent. A bonus for the military in this regard is that recruiting qualified personnel will be easier. By changing military life so that it is more like civilian

life, more young people will likely be attracted to the military. Other kinds of identicalist changes that might be brought about include not mandating the wearing of uniforms in those settings where military personnel perform noncombat related jobs and not mandating the endlessly repetitive ritual of saluting.

The archetypical officer for identicalism is General Iden. Here are his thoughts:

My idiot fellow officers don't realize how things have changed even since Vietnam. They still don't realize the extent to which the military has to have the approval of the society to operate effectively. Those elitist idiots don't realize how they encourage alienation between the military and the society by isolating one from the other. If we want to be accepted by the society we serve, we can't afford to be seen as a nation within a nation. We need to maximize interaction between us and them. Besides, we gain more with interaction by tapping the skills and resources of the society to help us accomplish our mission. Of course we have to wear uniforms in battle just as doctors have to wear their white uniforms while they do their work. But it is just stupid to make a big deal with uniforms when we are not fighting or training to fight. The main thing it does is tell the rest of society how different we are from them. It is equally stupid to isolate the military geographically in camps and bases. That is what really encourages people to think that we are keeping secrets about how we are spending their money. Yes, some military secrets might get out to a potential enemy if we were more open to our own society; but secrecy harms us more than it helps an enemy. It does so because with lots of secrecy the right hand often doesn't know what the left hand is doing. Too bad my views about the military aren't shared by anybody I know in the military.

### **Fusionism**

As mentioned already, fusionism falls between identicalism and paternalistic separatism. Fusionism is not identicalism because it insists on maintaining a distinct identity for the military from the rest of society. This theory argues that the military needs to maintain its own ethical ideals and traditions; and needs to be separated at least to a certain degree from the rest of society.<sup>15</sup> Yet fusionism is different from both forms of separatism in that it also argues for stronger connections between the military and the society than do separatists.<sup>16</sup>

These connections are stronger, and thus represent points of fusion, because they are what philosophers call conversational in nature.<sup>17</sup> These con-

versational connections are between individuals or groups who, when they discuss things with one another, do so in a free and open manner—where being open means that neither side engages in systematic deception either by means of lies, exaggeration, distortion, and withholding information, or by deliberately using vague, ambiguous, or otherwise deceptive language.<sup>17(pp26–27)</sup> In this regard, an advocate of fusionism would have little sympathy with paternalistic separatism where the linguistic exchange is one-sided because, under that doctrine, the military endeavors to manipulate language rather than use it to foster genuine communication.

One implication of fusionism with respect to the military's relations with the government is that there will be fewer military secrets. Fusionism favors letting the society as a whole know more about the activities of the military so that the excuse of "military secrecy" is not used to hide errors and corruption. Examples of such public knowledge include published articles discussing military misdeeds such as the Air Force spending \$200,000 to fly a general home to his new assignment,<sup>18</sup> the cover-up of the massacre of civilians at My Lai during the Vietnam War,<sup>19</sup> discussions of experimentation during the Cold War,<sup>20</sup> and the Tailhook scandal involving naval aviators' misbehavior in a civilian hotel.<sup>21</sup>

When some secrecy is needed, fusionism argues that at least some of the society's objectively minded elected representatives be "in on" the secrets. An example of this point was the movement of weapons-grade nuclear material from a former Soviet republic to the United States for proper disposal, as described in an article in the *New York Times*.<sup>22</sup> It is clear that secrecy was justified in this case because the material had to be moved without the knowledge of terrorist groups that might have wished to seize it. As it is described in the *Times* report, however, it is not clear whether enough elected officials were notified about the movement of the nuclear fuel to satisfy fusionist thinking. Thus, in this sense, fusionism opposes those military secrets where only the military knows about them; or, aside from the military, only co-opted outsiders are in the know.

The idea behind this concern for openness within the doctrine of fusionism can be understood best through an analogy to medicine. Medicine, like military activity, is service oriented.<sup>23</sup> According to the ideal, medicine as a discipline is not in place to serve physicians, but to serve patients—where serving patients means acting in their best interest first and foremost. But to do this, physicians need to

carefully consult with their patients because in a real sense patients know best what they want.<sup>24</sup> Of course, physicians know many things, too. Mainly they are experts concerned with what means are needed in order to arrive at some end. Given that for most patients the end they desire is health, physicians are good at telling people what means they should adopt to achieve that end. But physicians are not specialists about ends. They are not specialists about the sense of health that patients want, or whether patients are even concerned about health at all when they happen to be in a state of great and permanent distress. About ends, then, patients are in the best position to know what is right for them. Given this insight, it is important for physicians to listen to their patients and allow them to make their own decisions (about ends and even to some extent about means). But to do that, physicians need to give their patients information so that their decisions are as rational as they can be. To the extent that physicians hold back information, lie to them, or deceive them in some other way, patients cannot make decisions about their ends because they are not fully informed.<sup>25</sup>

By analogy, if we see the military as a service institution it would be just as important for it to fully inform the society (ie, its patient) so that the society can make rational decisions about how it can best be served. Morris Janowitz expresses the same thought as follows.

[T]he problems of civilian control consist of a variety of managerial and political tasks. As a requisite for adequate civilian control, the legislature and the executive must have at their disposal both criteria and information for judging the state of readiness and effectiveness of the military establishment in its constabulary role.<sup>26(p420)</sup>

According to fusionism, then, paternalistic separatism advocates policies like those that physicians held to a generation ago when the phrase "doctor knows best" was popular—a phrase that suggests that physicians are specialists not only about means but also about ends. Fusionism would go on to argue that insofar as paternalistic separatism argues for a policy that comes down to "the military knows best," it is advocating policies that come dangerously close to subverting the democratic ideals of a society such as the United States.

Fusionism's basic stance can be extended to apply to the military's relationships with the rest of society. For fusionism, modern military activity is far too related to technological development for classic or paternalistic separatism to make any sense



when, for example, the military has to deal with business or industry. But beyond having regular contact with business and industry, in particular its production facilities and research talents, the military has to be careful not to make its contacts with these institutions too narrow. Just as it would not do for the military to focus on giving its information about its activities just to certain “co-opted” political figures, so its contact with business and industry should not be just with certain favored (“co-opted”) businesses. Rather, the avenues of contact need to be broad, probably much broader than they are at present.<sup>27(p205)</sup>

In this connection, consider the distinction between product and process technologies. The former refers to technologies that produce new fighter planes, radar systems, missiles, and the like; the latter to technologies concerned with how to produce higher-quality products in greater numbers and at less cost.<sup>27(p205)</sup>

It must be emphasized here that the Department of Defense has traditionally devoted all of its R&D [research and development] resources to *product* technologies and *product* development activities. In fact, it is only possible to specifically identify about 1 percent of the over \$35 billion of defense R&D that are devoted to process technologies—geared toward cost and schedule reductions. These are the manufacturing technology programs, which run between \$200 and \$300 million a year. By contrast, world-class corporations in the United States spend something like one-third of their total R&D dollars on process technologies, and Japanese world-class firms tend to spend approximately two-thirds of their total R&D dollars on process technologies.<sup>27(p205)</sup>

But there is change in the air that an enthusiastic fusionist would approve of. In designing its new attack submarine<sup>28</sup> and its next generation destroyer (DD-21)<sup>29</sup> the US Navy is taking process as well as product into account. How these ships are built and the costs of building them are taken into account even in the design of these ships. This means that from the start, those in charge of these programs will, if necessary, reach out beyond the military (ie, resort to outsourcing) to find workers, managers, equipment, and facilities to prepare these ships for war.<sup>30</sup> All of the services are doing, or at least trying to do, the same, that is, they are engaging in a process that is often labeled Total Quality Management (TQM).<sup>31</sup> By their very nature, TQM and its variants are processes that urge everyone involved in producing some product or engaged in some ac-

tivity to look constantly and everywhere for the best way of doing things.

Fusionism’s attitude toward academia is similarly open-ended. It argues that when academia is approached by the military on a we-can-learn-from-each-other basis, things go better than they do when the military tries, defensively, to hide all its little and large warts.<sup>3(p754)</sup> Indeed, in this spirit the Air Force, Army, and Navy have a long-standing tradition of sending officers to graduate school at major universities. All of these services also invite civilian faculty to teach at their military academies.

Similarly, fusionism argues for openness with respect to the mass media. Fusionists grant that it is not so easy to make a convincing case for openness here because the media are famous for their “feeding frenzy” when it comes to telling the public about misdeeds and illegalities.

The electronic media, and particularly television, cause another problem. We can call it the CNN (Cable News Network) paradox. The paradox works like this. Television crews from CNN and other television networks visit a scene of human suffering such as a war or nationwide starvation. The suffering is portrayed so vividly by television cameras that a demand arises from the viewing audience that something be done. The demand for a solution is so insistent that eventually military forces are inserted. Unfortunately, the military forces almost always suffer casualties sooner or later and, of course, the cameras dutifully and vividly give us reports about these ugly events. Now the loud-and-clear cry to “Bring the boys home” is heard. So the paradox is that the television camera both encourages decision makers to put military forces at risk and, yet, well before these forces have time to deal with the problems they have come to deal with, encourages them to get out.

In spite of these and other mass media problems, fusionism insists that given the kind of society in which we live, the mass media represent some of the primary ways the society has of informing itself about what the military is doing. Without the media in place, the society at large would simply not be in such a good position to give its consent to what the military should and should not be doing. Here is how Robert Trice expresses some of these and other related thoughts about the relationship between the military and the mass media.

They [the mass media] serve as the primary link between the Government and the American people by providing information from government decisionmakers to the public and feedback from the



public to policymakers. The mass media are the primary source of information for the professionals about world happenings. The media can support governmental actions by providing favorable analysis and explanations of complex situations and decisions. The media can play the role of adversary to the government by questioning the wisdom or motivation behind policy decisions. In their adversary role, they are most likely to have an observable effect on national security policy.

The media can exert significant nongovernmental influence through the ability to conduct and publicize independent investigations that can trigger more powerful actors like the President or Congress into action. For example, Seymour Hersch's investigation of My Lai, Joseph Treaster's stories on Dr. Frank Olson's fatal overdoses of LSD [lysergic acid diethylamide] given by the CIA [Central Intelligence Agency] and the special cover-up on the "Selling of the Pentagon" [ie, engaging in public relations] set in motion processes that brought the behavior of professionals under close scrutiny.<sup>32(p507)</sup>

Given these thoughts, fusionists argue that it is up to the military to play its cards in the open, thereby keeping the society as fully informed as is possible. It is also up to the military to learn to roll with the punches when it receives criticism.

The first half of the fusionist doctrine, thus, argues for the military to generate and sustain open, broad, and close connections with a variety of institutions. Insofar as it does this, it makes itself different from all forms of separatism. The second half of this doctrine shows itself to be different from identicalism in that in spite of the fusion of the military with the various societal institutions, a certain amount of separatism is necessary. It argues that those in the military represent diverse groups. Some

can be soldier statesmen, others businesslike in their thinking and actions, and still others more academic in their orientation. These people are the ones whose duty it is to fuse the military to one or another part of the society. But diversity in the military is such that there are others whose duties have nothing to do with fusing. Their duties are related to the traditional military fighting roles. According to fusionism, then, the military can both have and eat its cake. Thus, there is room within the military for some to focus their attention on fusing, while others focus on fighting. It is only a prejudice of past thinking to suppose that the whole of the military must devote itself to the ethics of its fighting traditions or be corrupted by outside influences.

General Futon represents the archetypical fusionist officer in our imaginative exercises. Here is how his thoughts run.

My job in the military is to facilitate communication with the President, his advisers and Congress. I've found that if I am open and honest with those I deal with, I get along better in the long run. Hey, it's the same for me when I try to handle problems I have at home—with my wife and kids. Sometimes it's difficult to tell the truth but if I lie to them, it's worse later—when I get caught. And that's the truth. Because I tell the truth—well most of the time anyway—I'm nobody's "yes" man. If the President says something pertaining to military matters and I think what he says is wrong, I tell him so. If he doesn't like hearing "No," he can fire me. So far I'm still in business. And part of being in business is helping those in the military who are better at fighting wars than I am—and who aren't so good at dealing with Presidents as I am. It is my job to look after their interests and in so doing look after the interests of the nation.

## ASSESSING THE MILITARY-SOCIETY RELATIONSHIP THEORIES

With the descriptive account of the four theories about how the society and the military should relate to one another in place, it is time to assess each theory to see if one can be picked as better than the others. Because the descriptive accounts generally emphasized the strengths of each theory, the assessments will focus on their weaknesses.

### Is (Classic) Separatism Feasible in a Democracy?

The inspiration for separatism is reflected in General Separon's thought that the military needs a cocoon in which it can safely generate its own special way of life. Such a cocoon supposedly is needed

especially in liberal societies where the regimented life in the military contrasts starkly with life on the outside. Inside the group, discipline and sacrifice are important; while outside, individual freedom and indulgence seem to be the order of the day.

Because separatism in one form or another is a doctrine found in three of the four theories under discussion (all except identicalism), it has some degree of plausibility to it. However, both classic and extended separatism, that is, separatism in its pure form, suffer from three serious flaws. Two of them are closely related and can be thought of as flaws of practicality. The third is more theoretical.

The first practical flaw manifests itself as the result of technological change. There was probably a time in the 19th century when the military in many Western nations became professionalized, and when those military organizations could have been "separated."<sup>33(p106)</sup> In that century, technology was beginning to move forward at an accelerating pace, but the pace was not yet very rapid. As a result, contact with "the outside world" could be kept at a minimum. At that time, military organizations could assign the very few to buy the small arms, the cannon, ammunition, food, and clothing for the very many. The many could, as a result, live inside the military establishment in splendid isolation. But today, with modern technology advancing so rapidly, the military has to spend more time and effort determining whether what it buys is what it needs. But beyond that, more contact with the outside world is required to assess and service the equipment and supplies sent to the military. So modern technology ties the military to the society in such a way that it is impossible for separatism to work in quite the way it is sometimes envisioned by proponents of that doctrine.<sup>27</sup>

The second practical flaw making it difficult to implement separatism is that the society itself has changed. In part, the change is also directly the result of technology. Modern communication and travel make it far more difficult for the military to isolate itself as compared to even the amount of isolation possible during World War II. More than any other technology, the portable camcorder has brought about this change. It is there to record what happens, both good and bad, as it happens or soon after. Think here of how the Gulf War was covered and how, since then, such events as the slaughters in Somalia, Rwanda, and the former Yugoslavia were covered.

However, the change is fed not only by technology but by the desire of the society to know what its institutions are doing. The society far more today than in the recent past insists on accountability. It will not let physicians, lawyers, teachers, ministers, business leaders, and the military do their work as if they were operating in a vacuum. None of these institutions, but especially not the military with its huge tax-funded budgets, is allowed to act as it sees fit without explaining to the society what it is doing. Both recent and past events now come to light that would never have been reported in the past. In this connection consider General Ashby's flight from Europe to the United States in an almost empty C-141B that probably cost taxpayers between \$100,000. and \$200,000.<sup>18</sup> Then there is the case of

the 10 Air Force reservists who "appropriated" another C-141 evidently not just for training purposes but in order to attend two professional basketball games.<sup>34</sup> Or consider the many immoral and secret nuclear experiments done on soldiers early in the Cold War that have now come to light.<sup>20</sup> So again, for practical reasons, it is difficult to imagine how the military can operate in an exclusive or almost exclusive separatist manner, especially in a society like ours that prides itself on its open democratic manner of running the society. Separatism might still be a doctrine that could operate in a dictatorship of the left or right. However, in a democratic society like ours, it appears that such a doctrine is just not in the cards.

But even if somehow the two practical flaws of separatism could be overcome, the third flaw, the more theoretical one, needs to be dealt with. Recall once again that the advantage claimed for separatism is that it allows the military the social space it needs to train its people both with respect to the skills and the ethics of war. Let it be granted for the moment that this claim is valid. Even so, the argument over the validity of separatism is not thereby settled. What needs to be asked in addition is: What are the costs of this doctrine?

Consider an analogy to business, one as recent as the competition for sales of automobiles between American and Japanese companies. It is generally conceded that the Japanese manufacturers have for years been driving the market. Before the Japanese entered the American market, and for some years after that, American car companies continued to suffer from an isolationist mentality and thus continued to produce large and fairly low-quality automobiles. For a while they even made a good deal of money producing these vehicles. But the competition from Japan, and for a time from Germany in the form of the Volkswagen Beetle, caught up with them. In the 1990s, with a less isolationist mentality, American car companies began making a comeback. Across the board, they produced new vehicles that were fully competitive with those produced by foreign companies. They even took the lead in the production of new lines such as the minivan and the sports utility vehicle.

The lesson is obvious. Isolation has its costs. There might be some advantages to turning your head inward, as self-reflection has its rewards. But if Separon and his kind overdo it, they will likely fail to learn from others about how to make and do things right and, more generally, how to live well. They will experience these failures in the form of getting into habits that might have been appropri-

ate in the past, but are no longer so.

The same analogy works in academia. Quality research and creative work in academia are rarely the result of activity performed in isolation. While there is always the case of the idiosyncratic genius who surprises us with how much he or she accomplishes, most good academic work is public. Academic work, even that originally done in isolation, is publicly assessed in the end by one's peers in an objective setting.

The argument here is that military activity also needs the light of day to assess just how good or bad it is, as Fitzgerald has detailed in his discussion of waste and fraud in defense spending, as well as the "code of silence" that keeps embarrassing secrets out of the public view.<sup>35</sup> This is probably more so today with rapid changes in technology. Nineteenth century separatism with technology changing at a more leisurely pace might have made some sense, but 20th and 21st century separatism seems to make less sense, if classic separatism ever made sense at all.

### **Modern Democracies and Paternalistic Separatism**

Paternalistic separatism does not suffer from the obvious isolationist disadvantages of classic separatism. General Paterson and his allies realize that a certain amount of interaction is needed between the military and the society. Unlike classic separatists, they feel that their thinking is thus fully compatible with the conditions found in the 20th and 21st century where the military cannot avoid interacting with many of the other societal institutions on a regular basis. They also recognize that these interactions have to be realistic. It won't do, Paterson says, to interact with society in the idealistic way argued for by fusionists. The military would be rendered impotent if it were naively open in its dealings with Congress, the mass media, and a wide variety of institutionalized critics of the military such as The Center for Defense Information (which rather consistently argues for cuts in military spending far greater than Congress or recent presidents would allow) and Concerned Philosophers for Peace, a pacifist organization.

According to Paterson, then, the very way that politicians and the mass media operate forces the military to adopt persuasive strategies for dealing with the society. That's just the way the game is played. So if the military adopts a paternalistic attitude toward the society by exaggerating and even covering up a bit here and there, no one should really complain too much. In sum, those strategies

enable the military to deal as effectively as possible with the society. At the same time, those strategies enable the military to distance itself from the rest of the society so that it can sustain an independent ethic and a life style for dealing with war whenever it comes.

There are at least two flaws with this paternalistic separatist position. The first flaw derives from the effects of playing the game the way other institutions in the society allegedly play it. Paterson and his allies assume that their paternalistic strategies will protect the military. If they are successful, these strategies hide from everybody (the enemy as well as the society the military serves) the existence, numbers, and nature of military equipment. An example of such a strategy, according to Boatman,<sup>36</sup> was the *Q Program*, the development of a secret plane, which never materialized because of high costs and the end of the Cold War. These strategies also hide all sorts of small blunders committed by the military. All this hiding, the argument is, keeps the military insulated from a wide variety of exaggerated criticism and thereby facilitates the proper working of its paternalistic but also separatist ideology.

Thus the first flaw of paternalistic separatism pertains to the side effects of these evasive strategies. The view of those who advocate this ideology is that paternalism protects (separates) more than it exposes. They claim that it does more good than harm overall. But this assumption is highly questionable in part because the other institutions are not so naive as to believe all or even most of the stories the military tells.<sup>35(pp1-6)</sup> It may not take the mass media, academia, committees in the legislative branches, and other groups long to figure out when the military is playing a not overly honest paternalistic game. Even if much of what the military means to keep secret stays that way, uncovering some of what was deceptively covered can prove costly. Once trust is lost, much of what the military says is not likely to be believed. We have already noted that the military as an institution faces groups in the society that are negatively disposed to it. These groups do not need much incentive to trigger criticism of the military concerning waste, corruption, the opportunity costs of military spending, and the almost unstoppable power of the military industrial complex. If, now, the military's paternalistically inspired errors are exposed, as they are likely to be in these days where public awareness via television, computers, and radio is increasing, the paternalistic military may turn out to be its own worst enemy.

It is true, of course, that the rest of society plays games with communication. Those in business and industry and those in politics, just to name two groups, make it a practice of not always speaking honestly and openly. They engage in what we might say are less than ethical practices. Nonetheless, these same people who do not set high standards for themselves insist on setting high standards for the military and other service institutions.

It is apparent, then, that the military cannot rely on stealth policies to protect and isolate itself as a service institution. Once its cheating practices are uncovered, it will be the worse for it. It will be seen as having erred twice—first by making mistakes, second by trying to cover them up. The blown cover-up will encourage politicians to get as much political capital as possible from these mistakes. The cover-up will also encourage the mass media to sensationalize the errors in order to sell television and radio time, newspapers, and magazines. It seems then that contrary to paternalistic separatist doctrine, it might be best as a rule for the military to come clean right from the beginning. It can be argued, at least, that coming clean is not obviously so stupid an option as it might have seemed at first.

The second flaw inherent in paternalistic separatism is also consequentialist in nature. The argument pointing to the first flaw is that, contrary to paternalistic separatist doctrine, it may be that coming clean will in the long run serve the military and the society best. Even in the dog-eat-dog arena of politics and the mass media, it is better to simply be caught making mistakes than be caught making those mistakes and then caught covering them up as well. The second argument now says that a direct consequence of the paternalistic separatist position is that it leads down a very slippery slope. That slope is represented by the degenerate form of this position. Up to now paternalistic separatism has been represented as a doctrine that looks primarily at the society's, and only secondarily at the military's, best interests. But surely, with all its secrecy, it will not be easy to maintain paternalistic separatism in its pure form. The secrecy is supposed to be in place for the good of society. But the judges of just what to keep secret will be largely the military leaders themselves. To make matters worse, there will be few checks on their judgments because they will control most of the information needed for anyone to make sound rational decisions about what the military should be doing.<sup>3(p753)</sup> Given this situation, even if we generously assume that these

leaders have the ability to identify just what is and is not in the society's best interest, it is difficult to believe that only information that in fact is in the society's interest will be put in the large bin of "military secrets." The temptation will be to put things there that also have to do with corruption, personal privilege, waste, various other forms of inefficiency, stupidity, and so on.

A famous example of just this sort of corruption is described by Headrace Smith in his book, *The Power Game*.<sup>37</sup> It appears that in the early and middle 1980s the US Army was interested in developing, buying, and deploying a division air defense system called DIVAD. Each of the hundreds of DIVAD units that the US Army wanted to deploy eventually consisted of a tank chassis, multiple cannons, and radar. DIVAD was supposed to defend tanks, troops, and everything else in the field much better than anything available at that time. Aside from being very expensive, DIVAD didn't work very well. The guns didn't have the range needed to deal with modern airplanes and helicopters. Beyond that DIVAD had trouble dealing effectively with targets within its range—especially if they took evasive action. However, the US Army's test results did not reflect these difficulties. Videotapes showed DIVAD firing, and then seconds later "sitting duck" targets exploding and falling from the sky. But it was not DIVAD that was knocking down the targets. Rather, it was the range safety officer who destroyed them as DIVAD was firing. In short, many of the tests were faked. Fortunately the US Army got caught. "Moles" inside the Pentagon leaked information to the press and eventually when DIVAD's deficiencies and the cover-ups related to them were exposed the whole project was cancelled.

The point of the DIVAD story and others like it is that paternalistic separatism seems to be inherently degenerative. It is the kind of doctrine that in its ideal form can be made to sound plausible; but a kind that cannot easily, if at all, be practiced at or near its ideal form. The power the doctrine of paternalistic separatism gives to the military to decide what is and is not good for the society reminds us all of the cliché that power corrupts and absolute power corrupts absolutely.

### Can Identicalism Be Implemented?

As we have seen, identicalism is the only major doctrine concerned with the relationship between the military and the society that gives up on all forms of separatism. General Iden argues for a radi-



cal change in how the military is to be conceived. Breaking with a long tradition, he proposes that misunderstandings between the military and the society it serves be ameliorated by making the military as much like the rest of society as possible. For him, there will be fewer misunderstandings caused by the military's isolation, secrecy, being different, and anything of the sort if the military follows his doctrine.

However, one problem with identicalism is that even the modern military, with all its contacts with the society, cannot avoid a certain amount of isolation. In pure physical terms, large numbers of military personnel still need to be isolated from those they serve simply because they serve overseas—either in some foreign land or on ships. Businesses of course similarly send their personnel overseas but they usually send individuals or small groups rather than large units as the military does. So by the nature of the work it does, a need remains for a greater degree of isolation found in overseas military work than that found in the work of the society's other institutions.

But beyond that, military activity demands some isolation even when military work is done at home. Infantry, tank, artillery, and similar training in the US Army demand that the work be done on tracts of land isolated from the rest of society and not in and around major cities. Similarly, various training schedules in the US Air Force and in the US Navy demand isolation. And the need for separating the military from the society does not seem to be diminishing. If anything, intensive training with high-technology equipment demands a certain kind of mastery that takes great time and effort. It requires as well a level of teamwork, among the specialists in the fighting units, that again demands time and effort.

The need for teamwork inherent in modern military organizations suggests another criticism of identicalism. These units need large blocks of time alone to bond together as a team. The bonding is necessary given the nature of the dangerous work military people do. The leaders and the members of each unit need to know what each member of the team can do, which members are interchangeable with one another when there are casualties in battle, and how much trust they can place in one another. Here is how Marlowe expresses it.

It [modern warfare] requires not only higher technology than that possessed by a prospective opponent, but also the ability to use that technology at

its maximum level of technical and tactical effectiveness. Additionally, it requires highly trained and specialized support and service skills that will enable extremely rapid theater buildup using a combination of sea, air and land assets. It also requires that these actions be sustained for days or weeks in the face of the extraordinary psycho-social and psycho-physiological stresses and demands of contemporary continuous operations (eg, twenty-four-hour-a-day warfare). Overall, I believe that these changes define a necessary alteration of many of the US military's past concepts of personnel sustainment. The continuous pipeline of 'interchangeable parts' replacements of World War II, Korea and the Vietnam conflict and the personnel management and utilization policies of past effective operations can no longer optimally sustain new models of warfare in the 1990s.<sup>8(p149)</sup>

If anything, it seems, modern war has enhanced rather than diminished the need for at least a certain amount of isolation.

One concession might be made to identicalism. When military personnel serve in a civilian setting, as they do when they undertake a tour of duty at a university, they might be, as in fact they are, allowed to "go civilian." They are more likely to successfully go about performing their academic mission dressed like the sea of students they are working with rather than sticking out conspicuously in their uniform. However, a further concession to identicalism seems to be out of order. It might be thought that those military personnel who perform civilian-like work in military settings (eg, computer operators, mechanics, lawyers, physicians) should also be allowed to "go civilian." The argument might be that these people have attachments to the civilian side of their field or profession that are just as valid as the attachments they have to the military. And, the argument might continue, no real purpose is served by having them behave "like soldiers" when their work, as such, has nothing to do with soldiering.

But surely one among many objections to such an extension of the identiclist proposal is that it would divide the military into two classes of people—those who dress in uniform and act accordingly, and those who do not. Some in uniform would resent the privileges the civilian-like military have, and some on the civilian-like side would resent the treatment they receive from their uniformed compatriots—who very likely would think of them as not really being a part of the team. It is not difficult to imagine all sorts of morale problems developing

from this dual approach to dress and behavior among the military.

So if, in general, identicalism has some serious objections to it, there seems to be no good reason for conceding to the position even a partial victory. With few exceptions, as when individual military personnel go to university or work in civilian laboratories or factories, and in the process adopt the virtues of these workplaces, the model of military behavior that encourages military personnel to fully identify with the society seems to represent an unfortunate overreaction to classic and extended separatism.

### **Fusionism and the Future**

As we have seen, as a fusionist, General Futon tries to split the difference between paternalistic separatism and identicalism. He does his best to have the military, if not identify, then at least relate with the rest of the society in an open and relatively honest way so as to gain the society's trust. Yet he also argues for some separation. Without some separation, Futon argues that the military cannot build the teamwork necessary to carry out modern military operations.

The main problem with fusionism is its seemingly absurd naiveté. The naiveté is associated more with the activities of the military elite who deal with the political, business, and industrial elites than with the activities of those on the lower levels who tend to do what we think of as traditional military work. "Lower" types are the ones most separated from the society. They have problems of their own with credibility when it comes to reporting to their superiors about levels of preparedness. "Yes," the captain tells his superior, "all our tanks are ready for action" when in fact three of them are not quite in working order. And the superior has a similar problem when he writes a no-fault letter of recommendation for his not always perfect captain. But, by and large, these middle and lower level types do their work in ways that earn them respect from the society. It is these people who, if the military has a positive image within the society, have earned it through hard work and dedication to duty.

It is the opposite with the military elite. Although a few in this elite earn a great deal of respect and honor for themselves and the military when they successfully lead the military in battle,<sup>14(p144)</sup> the vast majority garner suspicion and cynicism especially when they are associated with the Pentagon and other military power centers.

Even so, that elite is seen as leading a machine so powerful that although it bends under social and political stresses, it does not break. The machine always manages to survive, so it seems, because the elite play hardball rather than softball with the rest of society. If the more idealistic softball game played by Futon were adopted by those in charge of the Pentagon, the military would be far less successful than it has been up to now in playing Paterson's game. At least that is the argument of the paternalistic separatists against the fusionists.

Part of the idealism that would contribute to harming the military and the society, they add, can be laid directly at the feet of the fusionism theory of communication. Recall that fusionism's paradigm of how communication should work is something like an open and honest tête-à-tête between two old friends. But clearly, paternalistic separatists say, that sort of relationship is not possible when the military talks to Congress, the mass media, or business and industry. Even if the military favored these institutions with open and honest talk, the favor would not likely be returned in kind. Each of these institutions has its own reasons for being less than candid in the conversational exchange with the military. Those in Congress need to get reelected. So if they see an opportunity to gain votes at the expense of the military, many, perhaps most, would seize it. As to the mass media, their concern is not with a normal conversation where there is an exchange of information and ideas between two parties. Rather, they are interested primarily in a one-directional flow of information. They ask the questions and the military is supposed to give the answers. And, again, answers that hurt the military are favored over those that help. Bad news sells better than good. As to business and industry, the military is for them a "money cow." Conversations between business and industry, on the one side, and the military, on the other, will focus not on an honest and open exchange of ideas but on "milking" the cow.

Futon then is not just naive. Insofar as he advocates a theory of what the relationship between the military and the rest of society should be, he advocates a policy that apparently cannot be implemented. His position rests on an analogy of two friends talking to one another when in fact the military has no friends to talk to. All its so-called friends help the military when the military can help them. But when helping the military hurts them, they will, so the argument goes, turn their backs.

## CONCLUSION

Which theory overall is most appropriate for a liberal democratic society such as the United States? (Table 7-1 summarizes the strengths and weaknesses of the four theories.) At best, (classic) and extended separatism has been seen as a doctrine for another time when there simply were fewer connections between the military and the rest of society. So there is no way that this doctrine in its pure form can give an account of the need the modern military has to create and sustain connections with the rest of a society. Separatism also fails to realize that there is a diversity of talent in the military that allows some to engage in the separatist tasks of preparing for war, and yet allows others to pursue a variety of nonseparatist tasks for the military. Finally, separatism is insensitive to the costs of isolationism. Separating oneself from others often leads to a mind-set not open to changes in military thinking—changes that need to take place because of the fast pace of modern technological development. Separatism's flaws are many and serious, and cannot easily be counterbalanced by the advantages of the position. It thus needs to be rejected as a serious option for how the military and the society should relate to one another.

For different reasons identicalism also needs to be rejected. It does not take into account the military's continued need for some separation to succeed in its training program and to give its military personnel a time and place to bond to one another. In its attempt to build a positive relationship between the military and the society, it goes too far. It assumes that this goal can be achieved only by minimizing separation and by, in effect, asking the military to lose its identity as an institution. Given the serious nature of military work, that is too high a price to pay.

So the choice is between paternalistic separatism and fusionism. These two positions at least sense that some combination of interaction and separation is needed to allow the military to best serve the society. But which of the two does this the best? Or perhaps, given the flaws of each, the question should be: which is the least flawed?

In the end, one of paternalistic separatism's flaws is fatal. So it too has to be rejected. That flaw, it will be recalled, is that position's tendency to lapse into a degenerate form. Of course each of the other positions has at least one degenerate form. Separatism can slide gradually into some kind of interactionism by allowing the military to become an

overly powerful state within a state. Identicalism, in contrast, can degenerate into some kind of separatism when it discovers that it simply cannot sustain its doctrine in its pure form. Even fusionism can suffer from backsliding when a few of its adherents gradually learn that you can successfully deceive some of the people some of the time.

But paternalistic separatism's tendency toward degeneration is different. The mentality of those who act in the spirit of this doctrine encourages them to make decisions without consulting seriously with others. (An example is the behavior of Lieutenant Colonel Oliver North and his cohorts in the mid-1980s that resulted in the Iran-Contra scandal, in which the stated intentions of Congress were circumvented because these individuals believed that their cause was just and therefore they were above the law.) For them, and others like them, authorization tends to be self-authorization. So there will be fewer checks on their decisions to do what is best for the society. There will be fewer checks on them as well when many of them degeneratively slide into acting not on the society's behalf but on their own; and in effect slide into corrupt practices. So whereas the other positions can suffer from degeneration due mainly to a variety of human weaknesses, paternalistic separatism suffers due to human weaknesses and the deceptive nature of the position itself.

A second fatal flaw of paternalistic separatism is also related to degeneration. In fact the society has not authorized the military to act in paternalistic ways. The military is not authorized to treat others as if they were children the way parents are authorized to treat their children as children. In its pure form, then, paternalistic separatism represents an undemocratic way of dealing with a liberal democratic society. Even in its pure form where the military is acting for the benefit of the society, it is undemocratic for the military, or any institution, to decide for that society what it should want and what is good for it. In this sense paternalistic separatism in its pure form cannot help but gradually undermine democratic societies.

The situation is worse for paternalistic separatism in its degenerative form. By working not for the benefit of the society but for the military, or what is even worse, for the benefit of the corrupters, this position directly destroys the democratic society. Once the society comes to know that those it trusted to defend itself steal, lie, and perhaps even kill for

**TABLE 7-1**  
**THE RELATIONSHIP OF THE MILITARY TO THE SOCIETY IT SERVES: SUMMARY OF THE FOUR MAJOR THEORIES**

Theory	(Classic) Separatism	Paternalistic Separatism	Fusionism	Identicalism
<b>Argument</b>	Military should be isolated from the political sphere	Military has society's best interests in mind and must shield society from some of what the military does	Military needs to maintain its own ideals and traditions, but should share more of its activities with the society it serves	Military should be more like the society it serves
<b>Strengths</b>	<ol style="list-style-type: none"> <li>1. Military can then devote full attention to war</li> <li>2. Keeps political sphere from becoming militarized</li> <li>3. Keeps military values and virtues strong by isolating military as a group</li> </ol>	<ol style="list-style-type: none"> <li>1. Will keep potential enemies in the dark about military capability</li> <li>2. Protects military from premature criticism, especially regarding necessary weapons development and procurement</li> </ol>	<ol style="list-style-type: none"> <li>1. Military will benefit from information exchange with a variety of institutions</li> <li>2. There will be less suspicion of the military if it is more open and candid about activities</li> <li>3. Only a few would be involved in sharing information; military will still be able to train and fight effectively</li> </ol>	<ol style="list-style-type: none"> <li>1. Soldiers can become effective without foregoing their civilian identity</li> <li>2. Society will become more sympathetic with the military and better understand its needs</li> <li>3. Military will assist more with community tasks</li> </ol>
<b>Weaknesses</b>	<ol style="list-style-type: none"> <li>1. Modern technology makes it almost impossible to keep the military separate</li> <li>2. Society itself has changed due to modern communication and travel technologies, which prevent separation/isolation</li> <li>3. Isolation results in failure to learn from others</li> <li>4. Military needs outside assessment of how good or bad it is</li> </ol>	<ol style="list-style-type: none"> <li>1. By seeking to control information flow, military jeopardizes the trust of the civilian sector; cover-ups are more costly than being forthright to begin with</li> <li>2. One cannot expect to practice paternalistic separatism in the ideal; it is inherently degenerative</li> <li>3. Society cannot trust military to only protect national security or weapons development secrets; society will assume that corruption, waste, and incompetence are also protected items</li> </ol>	<ol style="list-style-type: none"> <li>1. Open communication is not likely to be reciprocated; the media prefers the bad news to the good news</li> <li>2. Theory assumes that the military has friends but those friends often put their own interests first</li> </ol>	<ol style="list-style-type: none"> <li>1. Is not practical because the modern military needs more isolation in order to train with more technological weapons</li> <li>2. Separating military into two groups—those who wear the uniform and those who don't—in order to blend into society would foster resentment and disrupt cohesion</li> </ol>
<b>Assessment</b>	<b>Needs to be rejected</b> because it fails to understand that isolation is not an option in a democratic society	<b>Needs to be rejected</b> because it directly destroys democratic society through the withholding of information	<b>Needs to be accepted</b> because it seeks to protect democratic society through honest exchange of information	<b>Needs to be rejected</b> because it fails to understand that there must be some separation of military from the society it serves



their own benefit, trust in the system of government its citizens have honored in the past quickly gets lost. Paternalistic separatism simply must be rejected.

At the same time, this criticism of paternalistic separatism points to the strength of fusionism. Although it might be naive in some ways, fusionism at least makes a sincere effort to protect the political institutions of a democratic liberal society. By encouraging honest communication with the rest of government, the mass media, with business and industry, academia, and the other institutions, fusionism plays a supportive role here. Even if it fails in this regard because some members of the military lapse into paternalistic separatism, either in the degenerative or nondegenerative form, it is more likely to gain the respect of the rest of society because the majority of those in the military will be endeavoring to be good fusionists.

There is of course the criticism that fusionism cannot be implemented in its pure form because honest public communication involving the military will be a one-way street. Even if a fusionist military establishment does its best to meet the standards of honesty, there will be no *quid pro quo* on the other side.

But notice that although this is a serious flaw in fusionism, it is not fatal. It is not as if honest communication is literally subverted when one side is not cooperating. Those who communicate honestly do so successfully quite apart from whether their interlocutors speak truthfully or not in response. Nor is it the case that honest speakers lose or suffer because they are taken advantage of by their more manipulative linguistic partners. Indeed, there are times when honest speakers will lose. Some of these losses will occur simply because of their "partner's" deceptive practices. When those who have been lied to act on misleading information, they often will pay a heavy price. That is no surprise. But these losses will take place no matter whether the losers themselves are honest or not. Those who are lied to, or deceived in some other way, simply have to learn to protect themselves from such practices. Honest speakers do not have to trust those who are trying to take advantage of them. They do so only if they are foolish. But foolishness has nothing to do with their fusionism. Thus a military organiza-

tion lied to by a manufacturing firm must learn to monitor that firm more carefully or, if that does not work, must simply decide not to do business with it any longer.

The second way honest speakers suffer is more serious. Those listening to honest speakers may, if they have no scruples, use the information given to them to hurt those speakers. This is the form of harm that makes fusionism seem naive. Good fusionists, because they are honest and open, will inevitably hand over information that those who do not like them or those who have other agendas (eg, selling television time) may use against them. But, as we have seen, this downside of fusionism is only part of the story. Honesty and openness has an upside to it as well. Intelligent fusionists know this. They are not so naive as to not know that these traits help them avoid embarrassing cover-up incidents. Also they are not so naive as not to know that the more trust they generate among those in the society they serve, the more they are likely to be believed in the future when they say something like "We truly need this new weapon system."

So naiveté is not necessarily an intrinsic aspect of the fusionist position. Intelligent fusionists think perhaps that the losses and gains in being honest might come out about even; or perhaps they think that the losses from being taken advantage of are actually less than the gain. Whichever way they view it, it is clear that fusionism is not so stupid a position as it might have seemed initially. But beyond that, fusionism certainly holds the high moral ground when compared to paternalistic separatism. Unlike that position, fusionist policies deliberately attempt to serve the society from within the liberal democratic tradition. By doing so, we can say that when a fusionist military goes to war, it does so by following the will of the people.

In conclusion, we can see that (classic) separatism and paternalistic separatism may have worked to some degree in the past, but the past is gone. Identicalism could not work in any time period because it fails to fathom the true needs of the military. The present and future are best served by fusionism, which blends the needs of the military and the needs of the society it serves to ensure that the society is powerfully protected from its enemies, yet still safe from its powerful protector.

## REFERENCES

1. Fotion NG. *Military Ethics: Looking Toward the Future*. Stanford, Calif: Hoover Institution Press, Stanford University; 1990.

2. Reichart JF, Sturm SR. Introductory essay [to the section titled "The American Military: Professional and Ethical Issues"]. In: Reichart JF, Sturm SR, eds. *American Defense Policy*. 5th ed. Baltimore, Md: Johns Hopkins University Press; 1982: 720–729.
3. Slater J. Military officers and politics. In: Reichart JF, Sturm SR, eds. *American Defense Policy*. 5th ed. Baltimore, Md: Johns Hopkins University Press; 1982: 749–756.
4. Gale RHW. The impact of political factors on military judgment. *J Royal United Service Institution*. 1954;99:36. Cited by Huntington SP. *The Soldier and the State: The Theory and Politics of Civil-Military Relations*. Cambridge, Mass: Belknap Press of Harvard University Press; 1957: 71–72.
5. Huntington SP. *The Soldier and the State: The Theory and Politics of Civil-Military Relations*. Cambridge, Mass: Belknap Press of Harvard University Press; 1957.
6. Segal DR, Blair J, Newport F, Stephens S. Convergence, isomorphism, and interdependence at the civil-military interface. *J Polit Mil Sociol*. 1974;2:157–172.
7. Lissak M. Convergence and structural linkages between the armed forces and the society. In: Martin ML, McCrate ES, eds. *The Military, Militarism and the Polity: Essays in Honor of Morris Janowitz*. New York: Free Press; 1984: 49–61.
8. Marlowe DH. Personnel and manpower: Change and evolution in the human dimensions of military service. In: Hermann CE, ed. *American Defense Annual: 1994*. New York: Lexington Books, Macmillan; 1994: 147–161.
9. Sherman WT. *Memoirs of General WT Sherman*. Vol. 2. New York: Charles L Webster & Co; 1892: 426, 456.
10. US Government Printing Office. *Soviet Military Power: 1987*. Washington DC: GPO; 1987.
11. Gervasi T. *Soviet Military Power: The Pentagon's Propaganda Document, Annotated and Corrected*. New York: Vintage Books; 1988.
12. Moskos CC Jr. From institution to occupation: Trends in military organization. *Armed Forces Soc*. 1977;4:41–50.
13. Schmitt E. Military planning an expanded role for the reserves. *New York Times*. November 25, 1994:A1, A11.
14. Eitelberg MJ. Military manpower and the future force. In: Kruzel J, ed. *American Defense Annual*. 8th ed. New York: Lexington Books, Macmillan; 1993: 135–152.
15. Bradford ZB, Murphy JR. A new look at the military profession. In: Foerster S, Wright EN, eds. *American Defense Policy*. 6th ed. Baltimore, Md: Johns Hopkins University Press; 1990: 613–618.
16. Byron JL. The sailor and the state. *Nav Inst Proc*. May 1998:30–33.
17. Grice HP. Logic and conversation. In: *Studies in the Way of Words*. Cambridge, Mass: Harvard University Press; 1989: 22–40.
18. Hackworth DH. Big bird, bad move. *Newsweek*. December 19, 1994:28–29.
19. Bilton M, Sim K. *Four Hours in My Lai*. New York: Viking Penguin; 1992.
20. Budiansky S, Goode EE, Gest T. The cold war experiments. *US News and World Report*. January 24, 1994: 32–36, 38.
21. Borkowski M. Chronology of a scandal that tarnished the Navy. *New York Times*. February 9, 1994:B7.
22. Gordone MR. US negotiates deal to remove bomb fuel in ex-Soviet republic. *New York Times*. November 23, 1994:1, 4.

23. American Medical Association Council on Ethical and Judicial Affairs. Fundamental elements of the patient-physician relationship. In: Beauchamp TL, Walters L, eds. *Contemporary Issues in Bioethics*. 5th ed. Belmont, Calif: Wadsworth Publishing Co; 1999: 40–41.
24. President's Commission for the Study of Ethical Problems in Medicine and Biomedical Research. Informed consent as active, shared decisionmaking. In: Beauchamp TL, Walters L, eds. *Contemporary Issues in Bioethics*. 4th ed. Belmont, Calif: Wadsworth Publishing Co; 1994: 390–394. Reprinted from *Making Health Care Decisions*, Vol. 1. Washington, DC: Government Printing Office; 1992.
25. Katz J. Physicians and patients: A history of silence. In: Beauchamp TL, Walters LR, eds. *Contemporary Issues in Bioethics*. 4th ed. Belmont, Calif: Wadsworth Publishing Co; 1994: 145–152.
26. Janowitz M. *The Professional Soldier: A Social and Political Portrait*. Glencoe, Ill: The Free Press of Glencoe; 1960: 420.
27. Gansler JS. The future defense industrial base. In: Kruzel J, ed. *American Defense Annual: 1993*. New York: Lexington Books, Macmillan; 1993: 204–220.
28. Carey M. Modularity times three: Flexibility, affordability keys to new attack submarine. *Sea Power*. April 1997:81–84.
29. Carnevale JA Jr. Offensive, responsive and flexible: DD-21. *Sea Power*. September 1999:34–36.
30. Thompson LB. Defense outsourcing: The coming revolution. *Sea Power*. February 1997:31–34.
31. Kanji GK, Asher M. *100 Methods for Total Quality Management*. London: Sage Publications; 1996.
32. Trice RH. The policy making process: Actors and their impact. In: Reichart JF, Sturm SR, eds. *American Defense Policy*. 5th ed. Baltimore, Md: The Johns Hopkins University Press; 1982: 504–507.
33. Hackett JW. The military in the service of the state. In: Wakin MM, ed. *War, Morality and the Military Profession*. 2nd ed. Boulder, Colo: Westview Press; 1986: 104–120.
34. Compart A. C-141 flight sets off new furor. *Air Force Times*. December 4, 1995:3.
35. Fitzgerald AE. *The Pentagonists: An Insider's View of Waste, Mismanagement and Fraud in Defense Spending*. Boston, Mass: Houghton Mifflin Co; 1989.
36. Boatman J. USA planned stealthy UV to replace SR-71. *Jane's Defense Weekly*. December 17, 1994:1, 3.
37. Smith H. *The Power Game: How Washington Works*. New York: Random House; 1988.





# Chapter 8

## JUST WAR DOCTRINE AND THE INTERNATIONAL LAW OF WAR

WILLIAM V. O'BRIEN, PhD<sup>\*</sup>; AND ANTHONY C. AREND, PhD<sup>†</sup>

---

### INTRODUCTION

#### THE HISTORIC RELATION OF JUST WAR DOCTRINE AND THE INTERNATIONAL LAW OF WAR

War-Decision Law (*Jus ad Bellum*)

War-Conduct Law (*Jus in Bello*)

#### CONTEMPORARY LEGAL AND MORAL RESTRAINTS ON RECOURSE TO ARMED FORCE

International War-Decision Law and the United Nations Charter

The War-Decision Law of Just War Doctrine

#### CONTEMPORARY LEGAL AND MORAL RESTRAINTS ON WAR CONDUCT

The Principles of International War-Conduct Law

Some Specific Areas of International War-Conduct Law

The War-Conduct Law in Just War Doctrine

#### APPLICATION OF THE INTERNATIONAL LAW OF WAR AND JUST WAR DOCTRINE

### CONCLUSION

<sup>\*</sup>Lieutenant Colonel, Civil Affairs, United States Army Reserve (Retired); Professor of Government Emeritus (Retired), Georgetown University, 4000 Reservoir Road, Washington, DC 20056

<sup>†</sup>Professor of Government and Adjunct Professor of Law, Georgetown University, 4000 Reservoir Road, Washington, DC 20056



John Singer Sargent

*Gassed*

Oil on canvas, 1919

Toward the end of the First World War, the British War Memorials Committee commissioned Sargent to make a large painting for a projected Hall of Remembrance. Sargent spent several months at the western front in France, making preliminary sketches and watercolors. The subject he ultimately chose was the effects of the weapon mustard gas, which blinded its victims and produced blistering skin and bleeding lungs. Here, in a painting that contrasts sharply with the glamour and carefree mood of most of his earlier art, the line of wounded men stumbling toward a first-aid station was directly inspired by scenes Sargent observed at the front. At the same time, he made his image more powerful and timeless by its visual reference to processions of figures on ancient Greek and Roman sculptural friezes. Caption: The Museum of Fine Arts, Boston, from their 27 June–26 September 1999, Sargent exhibition.

Artwork: Courtesy of the Imperial War Museum, London.

## INTRODUCTION

There have been two concepts of war over the centuries. One holds that war may be pursued without moral or legal restraints that would conflict with the exigencies of military necessity. It is summed up in General William Tecumseh Sherman's pronouncement that "War is hell."<sup>1</sup>(pp126–127) The other contends that war is limited by the requirements of morality and law, notwithstanding the claims of military necessity. This latter concept is the basis for just war doctrine and other sources of moral guidance as well as for the international law of war. History, old and recent, demonstrates that the first concept ("necessity knows no law" and "all is fair in love and war") has more often than not predominated. Nevertheless, the quest for moral and legal restraints on war is a very old one that continues in the face of bitter conflicts that are rendered all the more destructive by modern weaponry and technology.

To understand moral and legal limits on war, one must begin with the understanding that their object is to achieve something that has always been very difficult, namely, requiring a belligerent to relinquish perceived advantages. To be sure, not all moral and legal limits on belligerent conduct clash with true military necessity. Many of these limitations are mutually beneficial to the belligerents. Moreover, violations of moral and legal norms may ultimately contribute to defeat rather than victory. But, absent any world authority to enforce moral and legal norms, just war doctrine and the international law of war become relevant only when belligerents respect and enforce these norms themselves. Clearly, then, the first step toward making just war doctrine and the international law of war practical guides to belligerent behavior is to understand their character and content.

## THE HISTORIC RELATION OF JUST WAR DOCTRINE AND THE INTERNATIONAL LAW OF WAR

Warfare in ancient civilizations of which there is written record was, on the whole, total and brutal. Defeated enemies were often exterminated or, at best, reduced to slavery. Some moral and legal norms, however, did develop. Because they usually had both a moral and practical basis rooted in evolving custom, it is not useful at this point to distinguish what became just war doctrine from the international law of war.

Most of the limits on warfare did not relate to the conduct of combat but to the relations between belligerents such as the exchange of envoys and their protection, establishment of truces, and negotiation of treaties. A recurring concept in Classical Antiquity was that of the inviolability of certain sacred places. This concept, however, was mainly limited to belligerents of the same general religious persuasion, that is, among Greeks.<sup>2</sup> The most significant rule of war that is found in Classical Antiquity in the Middle East and Greece was the prohibition against poisoning wells or destroying oases, as it was considered to be a crime against all mankind to destroy a source of water. Naturally, this prohibition was not always observed but it established a norm that is applicable to today's world where there are so many appalling means of destroying and fouling the earth.<sup>3</sup>(p209)

Western just war doctrine has its origins in Classical Antiquity in the Roman *bellum justum* (just war) that, while based on pagan religion, set the

example of seeking the approval of the gods before initiating a war.<sup>4</sup>(pp41–42) *Bellum justum* appears to have had little interest in the conduct of a war once launched and Roman combat practices were notoriously brutal.<sup>3</sup>(p203) In contrast, during this same period, early Christianity was marked by pacifism, in part due to Christian emphasis on nonviolence. Another important reason for Christian pacifism was that Christians were persecuted or, at best, barely tolerated, had little stake in Roman society, and avoided military service because it involved submission to pagan religion and was characterized by widespread immorality.<sup>5</sup>

Christianity was finally accepted in Roman society after several centuries of marginal influence. The first significant step into mainstream Roman life came in the early fourth century AD. After his victory at Milvian Bridge (AD 312), which he attributed to divine intervention, Emperor Constantine became favorable to Christianity. By AD 380 the Emperor Theodosius I declared Christianity the Roman Empire's official religion. Christians increasingly found their fate tied to Rome, which by then was periodically invaded by barbarians. There was a need to formulate moral doctrine to deal with the role of Christians in the defense of Rome.

This task was taken up by St. Augustine (AD 354–430). He developed a Christian just war doctrine that, like the pagan *bellum justum*, focused mainly on the decision to go to war, with relatively little

attention to the ensuing conduct of war. Indeed, Augustine's emphasis on the rectitude of the just belligerent and the sinful character of the unjust belligerent can be interpreted to give the just party a very wide discretion in its war conduct.<sup>6</sup>

Christian just war doctrine is most relevant to the West because it influenced not only moral teaching but also the development of the international law of war. It must be recognized, however, that various forms of just war doctrine developed in other cultures, most notably in Islam. There, too, the emphasis tended to be on establishing the justice of the war rather than limiting its conduct, although some moral and legal limits did develop.<sup>7-11</sup>

From these early beginnings gradually emerged two sources of moral and legal guidance about war. One part, dealing with recourse to war, was traditionally known as the *jus ad bellum*, or war-decision law. The other part, attempting to regulate and mitigate the conduct of war, was known as the *jus in bello*, or war conduct-law. This division remains in both contemporary just war doctrine and the international law of war.

In order to understand the relation of just war doctrine to the modern international law of war, it is worthwhile to trace their respective historic development and relationship. The following account focuses on developments in Western civilization because contemporary international law evolved from the emerging European states and spread worldwide as a result of their imperialistic expansion.

### War-Decision Law (*Jus ad Bellum*)

In the 7 or 8 centuries following the efforts of St. Augustine, normative restrictions on recourse to armed force continued to be found almost exclusively in the moral teachings of Christian just war doctrine, canon law, and Church-imposed regimes. A variety of Christian theologians and philosophers contributed to these moral prescriptions but the most important of them was St. Thomas Aquinas (1224–1274).<sup>12</sup> St. Thomas began his analysis of war from the standpoint of the necessity of protecting political society. Assuming, as had Aristotle, that man was a political and social animal and that political society was a necessity and a good in itself, St. Thomas concluded that such a society could rightfully be protected against aggression. Defense of the society, however, involved killing and the presumption was against killing. St. Thomas held that this presumption could be overcome by meeting three conditions.

These conditions, constituting war-decision law (*jus ad bellum*), were:

1. *Competent authority*: War must be waged under the public authority of the political society;
2. *Just cause*: War must be waged either in legitimate self-defense or to correct and punish grievous injuries; and
3. *Right intention*: War must only be pursued in order to achieve the ends of the just cause, without hatred or desire of vengeance, and in order to establish a just and lasting peace.

Aside from some very particularistic rules of war conduct (eg, to protect clergy and religious pilgrims), St. Thomas' just war doctrine was limited to war-decision law. However, the condition of right intention, if respected, should limit the conduct of a just war.<sup>13</sup>

Later Scholastics such as Francisco de Vitoria (1483–1586) and Francisco Suarez (1548–1617) developed the war-decision law, *jus ad bellum*, as well as war-conduct law, *jus in bello*.<sup>14</sup> Their treatment of war-conduct law owed much to the customary principles and practices of the Age of Chivalry and contemporary belligerents. Shortly after Suarez' death in 1617, the destructive Thirty Years War (1618–1648) contributed to the emergence of a European law of nations, built in large part on the just war tradition. The most notable contributor to this development was the Dutch jurist Hugo Grotius whose work, *De Jure Belli ac Pacis*, written in 1625 in the midst of the slaughter, is considered the seminal international law text.<sup>15(pp25–35)</sup>

Grotius' work combined natural law concepts similar to those underlying the Christian just war tradition with prescriptions claimed to be derived from the customary practice of states. In the years that followed the Thirty Years War both sources continued to influence the law of nations. With the rise of the secular, sovereign state, however, the war-decision concepts of just war doctrine declined in importance and finally disappeared in the law of nations. By the 18th century, there was little disposition to justify or condemn recourse to war as just or unjust. War was simply considered a fact of international politics. Morality was divorced from law and the law of nations was only concerned with the legal consequences of war. This was the case throughout the 19th century and at the outset of World War I.

The appalling magnitude of the destruction of World War I engendered a widespread reaction against war as an instrument of foreign policy. Part of that reaction took the form of the war-guilt clause in the Versailles Treaty that blamed Germany for the war, surely unfair and certainly at odds with



the legal situation of 1914 when hostilities began and there was no general prohibition of recourse to armed force. A more enlightened—if overly optimistic—result of this same reaction against war was the establishment of the League of Nations and the effort to “outlaw” war.

The war-decision regime of the League of Nations essentially prohibited recourse to armed force except when all peaceful means of settling a conflict had been exhausted, or in self-defense, or when the League itself took armed sanctions against an aggressor. The League Covenant was supposedly strengthened by a number of conventions signed in the 1920s and 1930s. The most important was the Kellogg-Briand Pact of 27 August 1928 whereby the Parties “condemn recourse to war for the solution of international controversies, and renounce it as an instrument of national policy in their relations with one another.”<sup>16(p912)</sup> Most states in the world adhered to the Kellogg-Briand Pact.

These efforts to change the international system failed in the 1930s. The structure of the League of Nations and the failure of the leading democratic powers to stand up to German, Japanese, and Italian aggression in the late 1930s rendered the Covenant, the Kellogg-Briand Pact, and the other conventions worthless. Recognizing this, the victorious powers of World War II sought to achieve what the League had failed to do by establishing a United Nations Organization (UNO) with better arrangements for enforcing its laws and the expectation that the wartime allies would continue to cooperate to maintain the peace.

The Cold War thwarted hopes that the United Nations (UN) could improve on the League of Nations’ record with regard to enforcing the peace. With the end of the Cold War, these hopes have been revived but, as will be discussed, the effectiveness of United Nations war-decision law is still problematic. Meanwhile, the proliferation of international and civil conflicts and, in particular, the threat of nuclear war, have engendered a revival of just war doctrine in the West. Just war doctrine has increasingly been considered as a source of normative guidance complementary to the international law of war, both war-decision and war-conduct law.

### **War-Conduct Law (*Jus in Bello*)**

In just war doctrine as well as the international law of war, principles and rules governing war-conduct have historically reflected belligerent practice. In the past, restraints on war-conduct were inspired by a mixture of morality, chivalry, and professional ethics applied in the light of the characteristics and

pragmatic aspects of warfare. The state of war-conduct law obviously reflected the nature of weaponry, as well as the magnitude of a conflict. Thus, in a comparatively total war between whole societies mobilized to support huge armies, as in the two World Wars, observance of the laws of war is difficult. In limited wars, with limited ends and means, war-conduct law is more likely to be respected. It was in an era of limited wars fought by small professional armies that international war-conduct law was developed in the 18th and 19th centuries.

By 1863 it was possible for Professor Francis Lieber, a German immigrant to the United States, to prepare for President Lincoln a war-conduct code for the regulation of the Union Armies. This code (which became known as the Lieber Code) reflected the contemporary state of war-conduct law in Europe. Following other efforts at codification of customary law, the Hague Conventions (II of 1899; IV of 1907) became the basis for the contemporary law of land warfare. However, efforts to codify rules for naval warfare failed.

Following World War I, attempts to confront new forms of warfare met with mixed results. The 1925 Geneva Gas Protocol prohibited the use of chemical and biological means and remains the principal source of international law on the subject. The 1928 Geneva Convention added to the provisions for protection of prisoners of war in the 1906 Geneva and 1907 Hague Conventions. However, efforts to restrict submarine warfare and aerial bombardment were unsuccessful.

The four 1949 Geneva Conventions dealt comprehensively with protection of the wounded and sick on land and on sea, prisoners of war, and civilians under belligerent occupation. They remain a major source of war-conduct law. (Exhibit 8-1 explains the nomenclature of international law.) The 1925 Geneva Protocol’s prohibition against use of biological weapons was reinforced by the 1972 Bacteriological (Biological) Convention. Two 1977 Protocols to the 1949 Geneva Conventions, one for international conflicts and one for civil conflicts, address a wide range of war-conduct issues but their status is questionable because of lack of ratification by key states, notably the United States. A 1980 Weapons Convention regulates but does not prohibit the use of napalm and other controversial means.

The advent of weapons of mass destruction—chemical, biological, and nuclear—and strategies aimed at attacking the civilian infrastructure of a belligerent have forced reconsideration of traditional war-conduct principles of proportionality and discrimination (ie, the immunity of civilians and civilian targets from direct intentional attack). These principles are common to just war doctrine and the international

## EXHIBIT 8-1

### THE NOMENCLATURE OF INTERNATIONAL LAW

International law is created through two primary methods: treaties and custom. Treaties are written international agreements. They constitute the "black-letter law" of international law. Treaties may be called many things: conventions, agreements, pacts, protocols, charters, covenants, or accords. At times, treaties are given names that correspond to the place in which they were negotiated, such as the Treaty of Versailles. At other times, they are given names based on the subject matter addressed by the treaty, such as the Nuclear Non-Proliferation Treaty. Occasionally, they may even be given a name derived from the names of the principal negotiators, such as the Kellogg-Briand Pact. Frequently, treaties will be cited with the date of their conclusion in their title, such as the 1925 Geneva Gas Protocol. It is not unusual for a major international conference to be convened to produce several treaties. For example, the 1907 Hague Peace Conference produced a number of treaties, such as the Hague Convention on the Pacific Settlement of International Disputes. Finally, it should be noted that at times a subsequent treaty is concluded to expand upon a previous international agreement. In 1977, for example, a conference was held to formulate two protocols that elaborated upon the 1948 Geneva Conventions. Hence, the literature might refer to Protocol Additional to Geneva Conventions of 12 August 1949 and Relating to the Protection of Victims of International Armed Conflicts simply as Protocol I of 1977.

law of war and will be explored in more detail in a subsequent section of this chapter. The excesses of two global wars, as well as subsequent conflicts, have badly eroded the legal status of these principles. The revival of just war doctrine has focused on this phenomenon in modern conventional wars and, particularly, in nuclear postures. In summary, efforts to de-

velop effective legal and moral restraints on war-conduct have continued and, at least in the West, have been taken seriously. But the challenges of modern warfare at all levels to war-conduct limitations continue to mount, requiring renewed determination on the part of belligerents to reconcile military necessity with legal and moral prescriptions.

### CONTEMPORARY LEGAL AND MORAL RESTRAINTS ON RECOURSE TO ARMED FORCE

Contemporary restraints on recourse to armed force are delineated by international war-decision law and the United Nations Charter. The war-decision law, in turn, derives from just war doctrine. Each of these will be discussed in detail.

#### International War-Decision Law and the United Nations Charter

Contemporary restraints on recourse to armed force rely on provisions and assumptions in international law as delineated in the United Nations Charter. There are, however, specific exceptions to those provisions as detailed in Articles 42 and 51 of the Charter. This chapter will explore the provisions of those articles as well as the history of the United Nations intervention in foreign affairs.

#### *Provisions and Assumptions*

International war-decision law centers on the provisions of the United Nations Charter as they have been interpreted and applied by the nations.

It is important to acknowledge the assumptions that underlie these provisions.

The first assumption is that development of peaceful means of conflict resolution by the United Nations, other international organizations, and the states of the international system will render war unnecessary. The second assumption is that collective security, based on a substantial monopoly of force in the international community, will deter threats to the peace and terminate them effectively when they occur. The third assumption is that the main threats to peace are posed by interstate conventional wars, such as World War I and World War II.

Obviously these assumptions have not proved realistic. Deep-seated animosities arising from national, ethnic, religious, and ideological sources have shown many modern conflicts to be intractable. The so-called "machinery for peace" assembled in the League of Nations period and supposedly strengthened in the UN era has failed to resolve innumerable modern conflicts.

Moreover, efforts to develop collective security arrangements to enforce the peace were doomed

during the Cold War and current attempts to realize the hopes of the UN Charter remain problematic. Finally, although interstate conventional wars remain a serious threat to the peace, most contemporary conflicts have been civil wars, often complicated by multiple interventions, usually fought in some combination of guerrilla/counterinsurgency and conventional warfare.<sup>17</sup>(pp118–119)

Accordingly, there is a considerable gap between the international war-decision law implied by a literal reading of the UN Charter and a realistic examination of belligerent practice since 1945. The key provision of the Charter is Article 2(4), which prohibits “the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the Purposes of the United Nations.” This provision expands upon the restrictions on the recourse to force contained in the League of Nations and the Kellogg-Briand Pact. Written in 1945, the UN Charter anticipates the count of Crimes Against Peace of the Nuremberg and Tokyo war crimes trials.

#### *Exceptions to the Provisions: Articles 42 and 51*

Under the law of the UN Charter there are only two explicit exceptions to this general prohibition of recourse to the threat or use of armed force that are still applicable. The first is the use of armed force by the Security Council under Article 42 as an enforcement measure if the council determines that there has been a threat to the peace, breach of the peace, or act of aggression. The Charter also provides under Article 51 for utilization of a regional organization by the Security Council in enforcement actions.

There has only been one occasion when the Security Council has been able to carry out an enforcement action in the sense of Article 42. This was the case in the 1991 Persian Gulf War.<sup>17</sup>(pp88–90) Although the Korean War<sup>18</sup> is often viewed as a UN war, UN participation was not based on Security Council authority. Rather it was a war of collective self-defense in which the General Assembly, which does not have the authority to order enforcement action, recommended, in the “Uniting for Peace Resolution” of 7 October 1950, that UN members assist in the defense of South Korea. Given the extraordinary circumstances of the Gulf War (eg, the clear and cruel nature of Iraq’s aggression, the rare unanimity of the permanent members of the Security Council who have the veto, and the willingness of the United States and its allies to mount a major military operation to end the threat to peace), it may

turn out that this enforcement action is unique. Whether other Security Council enforcement actions will be forthcoming is very hard to predict.

The second exception to the general prohibition of use of force established in Article 2(4) of the United Nations Charter is for actions taken in individual and collective self-defense, recognized as an “inherent right” in Article 51. This right is limited by the requirements that its invocation be reported to the Security Council and that it should only be in effect “until the Security Council has taken the measures necessary to maintain international peace.” The exception of self-defense has been the principal justification advanced for recourse to armed force in the UN era.

The problems of the legal justification of individual and collective self-defense are numerous. Article 51 provides for self-defense “if an armed attack occurs against a Member of the United Nations.” Clearly the model for “armed attack” occurring is a conventional attack across the border of a state. But many modern conflicts take the form of indirect aggression through infiltration of armed bands, indigenous enemies of the target state’s regime, or forces of the aggressors. Sometimes, as in the 1967 Arab-Israeli War, an armed attack is pending, there is a clear and present danger, and anticipatory self-defense in the form of preemptive war may be justified.<sup>19</sup>(pp71–79) Article 51’s reference to “a Member of the United Nations” is misleading. Self-defense is an “inherent” right, recognized, not created, by the Charter. There is no question that a nonmember state, such as South Korea in 1950 and South Vietnam from 1954 to 1975, has a right of individual and collective self-defense.<sup>15</sup>(pp417–419),<sup>19</sup>(p72)

#### *United Nations’ Intervention in Foreign Affairs*

Modern wars are often greatly complicated by foreign interventions. The UN Charter does not deal with such interventions, except in Article 2(7), which denies the UN itself the right “to intervene in matters which are essentially within the domestic jurisdiction of any state,” although this prohibition is not “to prejudice the application of enforcement measures under Chapter VII.” In other words, in the absence of Charter provisions on military and other intervention by states, customary international law must be applied. This law is extremely confused and controversial but there is warrant for stating that there is a general presumption against military intervention. In practice, four exceptions<sup>20</sup>(pp167–174) to the general principle of nonintervention have received some support:

1. intervention by treaty right;
2. intervention on the request of an incumbent government, often justified as counter-intervention in response to previous intervention into a civil war by a hostile state (eg, the United States intervention in Vietnam);
3. intervention to protect the lives of nationals and other aliens in clear and present danger because of civil strife or collapse of law and order (eg, Belgian intervention in Stanleyville, Congo, in 1963); and
4. humanitarian intervention to protect a people from its own government or from collapse of civil authority (eg, Somalia in 1992 and 1993, and Kosovo in 1999).

In summary, under the UN charter framework, international war-decision law requires that recourse to armed force be justified either as enforcement action ordered by the UN Security Council or as individual or collective self-defense. Military intervention in the domestic affairs of another nation may also be justified on one of the four bases listed above.

However, what may be legally permissible under international war-decision law may not be morally permissible or even politically and militarily prudent. For example, there is no doubt that the breakup of Yugoslavia was caused by the aggression of Serbia and Serbian rebels supported by the Serbian government against Croatia and Bosnia. Still, the Security Council was never able to authorize and organize true enforcement actions against these threats to the peace. No state volunteered to join Croatia or Bosnia in collective self-defense. While Serbian “ethnic cleansing” was clearly genocidal, no state or international organization volunteered for humanitarian intervention. There were clear legal arguments for initial intervention in the conflict by the United Nations, the North Atlantic Treaty Organization (NATO), or any state or group of states. Still, the victims of aggression and genocide were left to resist alone, aided marginally by relief efforts and occasional cease-fires and truces. Military intervention was legally justified but not attempted.

This failure to apply force against aggression and genocide may be explained simply by a failure of will on the part of the states and organizations that had the legal right to intervene. However, a legal right may not necessarily be a moral right. More is required than assurance of legal permissibility to launch military operations that promise to be very

destructive to all involved. For further normative and policy guidance it is wise to turn to modern just war doctrine.

### The War-Decision Law of Just War Doctrine

The war-decision law has as its basis a general presumption against war. It acknowledges, however, that there are specific war-decision conditions for waging just war. Through the studious application of these conditions, countries waging war evaluate and clarify the reasons for the armed force that they use. Before resorting to armed force there is always a need to fully explore options short of conflict.

### General Presumption Against War

Modern just war doctrine remains based on St. Thomas Aquinas’ formulation of the moral problem of war.<sup>6,12,17,20–25</sup> There is a presumption against waging war because of the killing, destruction, and misery that it brings. However, this presumption may be overcome by meeting certain conditions set forth in war-decision (*jus ad bellum*) and war-conduct (*jus in bello*) law.

It should be understood that although just war doctrine comes in great measure from religious and ethical sources, its relevance is not limited to those of particular religious or ethical beliefs. Just war doctrine can be followed as a matter of political-military prudence as well as religious or ethical guidance. As the just war conditions are outlined it should become clear that decision makers and their constituents ought to be considering the issues raised by them as a matter of common sense and good policy.

### War-Decision Conditions for Waging War

Law-abiding countries do not initiate war without first attempting to resolve issues without recourse to armed force. However, when circumstances are such that armed force becomes an option to be considered, a number of conditions are evaluated to determine whether to proceed. These conditions include: competent authority, just cause, comparative justice, probability of success, no other recourse, and right intentions.

**Competent Authority.** The first of the war-decision conditions of just war doctrine is the requirement that the belligerent have competent authority to go to war. In the contemporary world this means



constitutional authority. To be sure, many states today have little in the way of effective constitutional systems; incumbent regimes are frequently based on raw power and are arbitrary. However, in a country such as the United States the issue of constitutional competent authority to commit the nation to war is critical. A lesson from the Vietnam War is that a president should have an absolutely clear constitutional basis for waging war. This lesson had been learned by the time of the Persian Gulf War. When US forces and their allies attacked Iraq their commitment to combat was supported by the vote of the Congress on 12 January 1991.

**Just Cause.** The second main condition for recourse to war is just cause. This condition may be broken down into a number of requirements. First, there is the substance of the just cause. The most obvious just cause is self-defense. Much of modern writing on just war rejects offensive wars, purportedly in behalf of justice, which had been justified by the early just war writers.<sup>20(pp21ff),26(piii)</sup> However, the recent tragedies in Somalia, the Balkans, Rwanda, Haiti, Kosovo, and elsewhere have forced reconsideration of the definition of just cause. There is an increasing recognition that military intervention against repressive, genocidal regimes may meet the condition of just cause, even if the intervening power has little or no claim of self-defense. Indeed, it can be argued that there may be not only a moral right but a moral duty to intervene in such situations—provided the other conditions of just war can be met.

**Comparative Justice.** The next requirement of just cause is comparative justice. It is important to recognize the character of the opposing regimes and the practical consequences of victory or defeat if war is waged. If belligerents, on one side, are democracies based on the rule of law and, on the other side, totalitarian states based on repression, there is comparative justice on the side of the democracies because democratic regimes are more conducive to liberty and the rule of law. If they win, people will be liberated. If they lose, tyranny and possibly genocide will prevail. Of course, democracies based on the rule of law remain in the minority in the international system. Thus, political-military realities may make the evaluation of comparative justice difficult. For instance, Kuwait was no ideal democracy in 1990, however, Iraq was ruled by an oppressive and aggressive regime, as it demonstrated in repressing its own people and in its invasion and brutal occupation of Kuwait. The ultimate issue under comparative justice is whether the more just party will prevail.<sup>20(pp28ff),26(pp29ff)</sup>

**Probability of Success.** Another requirement of just cause is that the means necessary to achieve it be proportionate to the good achieved, in the light of the probability of success. This necessitates a difficult calculation of the probable costs of victory for the putatively just party—costs to both sides and to the international community generally. It is clearly possible to have an eminently just cause that cannot be pursued because there is little or no probability of success, or because success is probable only at prohibitive costs.<sup>20(pp28ff),26(pp30ff)</sup>

The calculation of probability of success and proportionality must be made at the initiation of a war. Because the course of wars can often differ from initial expectations, this calculation must be adjusted at every point in the course of a war when expectations of success with proportionate costs change. If a belligerent with an apparently clear just cause reaches the conclusion that continued prosecution of the war will not meet with success or that the costs will be disproportionate or both, that belligerent should seek to terminate the war.<sup>17(p280)</sup> Much of the continuing debate about America's role in the Vietnam War turns on arguments about the critical points when a reevaluation of the proportionate costs of the war in the light of the probabilities of success might have resulted in an earlier US disengagement.

**No Other Recourse.** The next to the last requirement of just cause is that it be pursued with armed force only after exhaustion of peaceful remedies. This means *reasonable* exhaustion of peaceful remedies.<sup>20(pp31ff),26(p30)</sup> Peaceful remedies include diplomatic exchanges, mediation, arbitration, and adjudication in international tribunals, often with an active role by international organizations such as the United Nations or regional organizations such as the Organization of American States or the Arab League. Peaceful remedies can also include nonmilitary sanctions, such as those provided for use by the Security Council in Article 41 of the UN Charter—"complete or partial interruption of economic relations and of rail, sea, air, postal, telegraphic, radio, and other means of communication, and severance of diplomatic relations."

It should be understood that there can be recourse to military means short of all-out war. In Article 42, authorizing Security Council military sanctions, reference is made to "demonstrations, blockade and other operations by air, sea, or land forces." Thus, in the case of Iraq's 1990 aggression against Kuwait, the Security Council of the United Nations authorized the coalition forces to carry out

a blockade of Iraq (SC Res. 665 of 26 August 1990). No combat resulted from this maritime blockade but it was obviously a use of armed force. The full-scale war only began on 18 January 1991 when Iraq had failed to meet the requirement (SC Res. 678 of 28 November 1990) to withdraw from Kuwait and obey the other relevant Security Council resolutions.

The determination that peaceful remedies have been reasonably exhausted requires an estimate of the probability that they will lead to realization of the just cause and of the probable damage to the just cause that may result from continued abstention from recourse to armed force. In the case of the Persian Gulf crisis (1990–1991), there was little doubt about the intention of Saddam Hussein's Iraqi regime to continue its illegal occupation of Kuwait and to be a threat to the Gulf area. Moreover, as the months passed, it was clear that Kuwait was suffering from a reign of terror, the continuation of which was unacceptable.

**Right Intention.** The last of the major war-decision

requirements of just war is right intention. There are three elements in this requirement. First, the just belligerent must limit its goals to those set forth in the just cause. It should not expand them, in effect, taking advantage of success in a just war to accomplish goals not included in the just cause. Second, the just belligerent must make efforts to avoid a spirit of hatred and revenge in its pursuit of the war. This is a hard saying for most belligerents, but it is a core requirement of just war. Finally, reflecting the first two elements, the just belligerent must wage the war and negotiate the peace so as to promote, rather than obstruct, the prospects for a just and lasting peace. Even the most bitter enemies must coexist after the war and measures that exceed the exigencies of military necessity and appear to be gratuitously cruel violate the requirements of right intention. Good examples of the practical rewards of adherence to the principle of right intention may be found in US postwar policies in occupied Germany and Japan.<sup>20(pp33ff),26(p30)</sup>

## CONTEMPORARY LEGAL AND MORAL RESTRAINTS ON WAR CONDUCT

Once the decision has been made that war cannot be avoided, and that the necessary conditions have been met for waging war, there is a need for legal and moral restraints on war conduct. These restraints are guided by the principles of international war-conduct law. Several specific areas of international war-conduct law will be explored in this chapter, as well as the place of war-conduct law in just war doctrine.

### The Principles of International War-Conduct Law

International war-conduct law is based on three principles: military necessity, humanity, and chivalry. Although this chapter focuses on contemporary war, the principles of international war-conduct law date to the early days of organized war.

#### *Military Necessity*

Military necessity requires that all war conduct be proportionate to a legitimate military end, permitted by the laws of war and natural law, ordered by a responsible commander, and subject to review. The first element in this principle is true necessity. This requirement is akin to the principle of proportion in the war-conduct law of just war doctrine. Actions that exceed what is necessary to achieve a legitimate military objective or that have no true

military utility (eg, gratuitous infliction of death and destruction) are not permitted by the principle of military necessity. Even if an action appears to have true military utility it still is impermissible if prohibited by the laws of war (eg, massive attacks on civilian targets for the purpose of forcing surrender of the enemy's forces.)<sup>20,27(¶1-5),28(p1801)</sup>

Thus far the definition of military necessity offered here is essentially that commonly accepted in US military legal sources. Limitations of natural law were added because the laws of war sometimes do not cover all war conduct and recourse must be had to perennial principles of natural law. For example, genocidal conduct (the systematic extermination of civilian populations solely because of their race, religion, or ideology) was not clearly prohibited by the laws of war during World War II. At the Nuremberg and other war crimes trials it was necessary to invoke the concept of Crimes Against Humanity, essentially a natural law rather than positive international law concept at that time, to deal with the horrendous genocidal conduct of the Nazis.<sup>20(pp66-67)</sup>

The decisions in war conduct must be made by responsible commanders and they must be subject to review, perhaps by a war crimes tribunal but more likely by higher commanders and civilian authorities. "Military necessity" is often, but erroneously, invoked as an unchallengeable, open-ended license to take whatever actions seem necessary for

victory, as in the *Kriegsraison* doctrine developed by German legalists and military commanders (c. 1870–1945). The *Kriegsraison* doctrine held that “necessity knows no law.” Given the temptation to interpret military necessity in this way, it is important to emphasize the requirements of legitimate military necessity that, clearly, limit war conduct while justifying that conduct that meets those requirements.<sup>29</sup>

### *Humanity*

The principle of humanity requires abstention from means and methods that cause superfluous suffering and includes the principle of discrimination, which prohibits direct, intentional attacks on noncombatants and civilian targets. The rejection of acts causing superfluous suffering reinforces the requirement of the principle of military necessity to limit war conduct to what is truly necessary in terms of military utility. The principle of discrimination, which will be addressed further in this chapter in the discussion of just war doctrine, is perhaps the most critical of the limits on war conduct because the risk of its violation is great at every level of warfare from revolutionary/counterinsurgency war to conventional interstate war to nuclear deterrence and war.<sup>20(pp65–66),27(¶1–6)</sup>

### *Chivalry*

The principle of chivalry, derived from the knightly codes of the past, requires that enemies be treated in good faith, that belligerent communication be honest and free of treachery, and that truces and other agreements be kept in good faith.<sup>20(pp65–66),27(¶1–6)</sup>

### **Some Specific Areas of International War-Conduct Law**

Based on these three fundamental principles, the international law of war deals primarily with the following subjects: (a) belligerent status under the law of war; (b) means and methods of destruction; (c) prisoners of war; (d) wounded and sick; (e) belligerent occupation; and (f) sanctions for the laws of war.

### *Determination of Belligerent Status*

Belligerent status simply refers to the question of who is a party to the conflict and thus entitled to the rights and obligations of a belligerent. Belligerent status under the law of war is clear in the case

when the adversaries are sovereign states, such as in the War of 1812 between the United States and Great Britain. In the past, belligerent status was acquired by revolutionary governments and their forces through recognition by third powers (eg, the Confederacy in the American Civil War, recognized as a belligerent for purposes of the laws of war but not yet as a new state by Great Britain and France). Recognition of belligerency was usually based on the perception that a revolutionary government controlled substantial territory and its population, that this government was organized and able to engage in ordinary governmental functions, and that its military forces had demonstrated that they were reasonably capable of prevailing in the civil war.

Modern armed conflicts do not always present the comparatively clear-cut state of affairs that existed in the American Civil War. Often civil wars or wars of national liberation are waged by movements and their forces located in remote areas, sometimes based in foreign countries, often on the move. Control of whatever areas these movements occupy may be based on the loyalty of the local inhabitants but it may often be based on force, ceasing when the revolutionaries move on. Still, such movements may ultimately succeed, as the FLN (Front de libération nationale) did in its Algerian war of national liberation, without occupying any important part of the country for any substantial period.

The issue of belligerent status is complicated by international politics. Some political-military movements, notably the Palestine Liberation Organization (PLO), have been accorded political recognition and treated by third parties to their war with Israel as bona fide belligerents. This has been the case, notwithstanding the fact that the PLO was never able to occupy and control any part of the area known as Palestine. The PLO managed to develop a huge body of supporting Third World (nonaligned) states and Second World (Communist-block) states and was treated with respect by First World (Western industrialized) states other than the United States. This support was evidenced by a grant of automatic belligerent status accorded implicitly to the PLO in the 1977 Geneva Protocol I Relating to the Victims of International Armed Conflict.<sup>30</sup>

Article 1(4) of the 1977 Geneva Protocol I gives automatic belligerent status to national liberation movements engaged in wars of national liberation with “colonial” and “racist” regimes and “alien” occupying powers.<sup>31</sup> This provision was aimed at South Africa, Israel, and Portugal (then still a colonial power). The circumstances in which this provi-

sion was passed have changed, but it demonstrates the willingness of the majority of the international community to disregard objective requirements for belligerent status in order to favor certain insurgent movements. The fact that this provision appears in Geneva Protocol I (a convention on international conflicts), and not in Geneva Protocol II (which deals with noninternational conflicts), reveals the preferential treatment given to these revolutionaries carrying out wars of national liberation.

Article 1 of 1977 Geneva Protocol II, in contrast, applies:

to all armed conflicts which are not covered by Article 1 of ... (Protocol I) and which take place in the territory of a High Contracting Party [ie, a party to this protocol] between its armed forces and dissident armed forces or other organized armed groups which, under responsible command, exercise such control over a part of its territory as to enable them to carry out sustained and concerted operations and to implement this Protocol.

Further, Article 1(2) of 1977 Geneva Protocol II specifies that:

this Protocol shall not apply to situations of internal disturbances and tensions, such as riots, isolated and sporadic acts of violence and other acts of similar nature, as not being armed conflicts.<sup>32</sup>

Neither Protocol I nor Protocol II has been ratified by a sufficient number of States to have entered into force. Neither has been ratified by the United States, which rejects a number of provisions of Protocol I, especially in Article 1(4), that give special belligerent status on the basis of ideological rather than objective political-military grounds. Article 1 of Protocol II appears to provide the best guidance for evaluation of claims to belligerent status under the law of war. It should be emphasized that belligerent status engenders duties as well as rights under the law. Many contemporary political/military movements employ terrorism and other strategies, tactics, and policies violative of the law of war, jeopardizing their claims to belligerent status.

### ***Controlling the Means and Methods of Warfare***

The law of war concerning means and methods of warfare begins with attempts to ban or greatly restrict certain weapons. On the whole, with the exception of chemical warfare (CW) and biological warfare (BW) means, these attempts have not been

very successful. As early as 1864 the St. Petersburg Declaration<sup>33</sup> claimed that the "progress of civilization should have the effect of alleviating as much as possible the calamities of war," that "the only legitimate object which states should endeavor to accomplish during war is to weaken the military force of the enemy," that "for this purpose, it is sufficient to disable the greatest number of men," and that "this object would be exceeded by the employment of arms which uselessly aggravate the sufferings of disabled men, or render their death inevitable." This provision reflected the influence of the principle of humanity and the emphasis on avoidance of "superfluous suffering."

**Minimizing "Superfluous Suffering."** The prohibition of means causing "superfluous suffering" was repeated in 1899 Hague Convention II and Article 23(e) of its successor, 1907 Hague Convention IV, which states that it is especially forbidden "to employ arms, projectiles, or materials calculated to cause unnecessary suffering."<sup>34</sup>(Art23e) However, although there has been broad acceptance of prohibitions against means causing "superfluous suffering" or "unnecessary suffering," there has been little agreement as to which specific means fall into the forbidden category. In 1899 Hague Declaration IV (3), "The High Contracting Parties agree to abstain from the use of bullets which expand or flatten easily in the human body, such as bullets with a hard envelope which does not entirely cover the core, or is pierced with incisions."<sup>35</sup> This declaration only applied to wars between the contracting parties. Great Britain and the United States were not parties to the 1899 Hague Declaration, which applied principally to so-called "dumdum" bullets.

However, *The Law of Land Warfare* (published July 1956) states that "usage ... has established the illegality of the use of lances with barbed heads, irregular-shaped bullets, and projectiles filled with glass, the use of any substance on bullets that would tend unnecessarily to inflame a wound inflicted by them, and the scoring of the surface or the filing off of the ends of the hard cases of bullets."<sup>36</sup>(¶34b)

Objections were raised during the Vietnam War to the small-caliber, high-velocity ammunition used in the American-made US M-16 rifles. These projectiles tumble end over end on impact, creating a large entry wound. Interestingly enough, the M-16's ammunition did not differ in this respect from that of the AK-47 rifle<sup>37</sup>(pp267-268) (manufactured by the former Soviet Union and supplied to the North Vietnamese military).

Critics of the American conduct of the Vietnam



War also condemned use of the cluster bomb [unit] (CBU). CBUs had a container that, when dropped from the air or fired by artillery, released numerous bomblets that fragment before, during, or after impact, dispersing over wide areas. CBUs were effective in suppressing antiaircraft batteries in US air raids in North Vietnam and later in the Israeli siege of the PLO forces in Beirut in the 1982 Lebanon War. Critics charged that the CBUs hit civilian as well as military targets and that the irregular fragments caused wounds of the kind prohibited by Article 23(3) of the 1907 Hague Convention. Inquiries by the International Committee of the Red Cross proved inconclusive, it being difficult to distinguish the wounds caused by CBUs from those caused by hand grenades or artillery shrapnel. Therefore, use of cluster bombs against military targets is clearly permissible because these weapons do not fall under the prohibition against cruel and unnecessary suffering. Permissibility of use against mixed military-civilian targets would depend on the proportion of military to civilian targets and the degree of military necessity for their use. Obviously, use of CBUs against primarily civilian targets is prohibited by the principle of discrimination.<sup>37(pp266-267)</sup>

Perhaps the most notorious charge of use of a weapon causing superfluous suffering came concerning the American use of napalm during the Vietnam War. Napalm became symbolic of the supposedly illegal conduct of the war by the American forces. Following the war there were demands for a convention outlawing napalm. The International Committee of the Red Cross organized a conference to draft a treaty on napalm and other forms of incendiary weapons. In the course of deliberations on this subject, it was noted that napalm and other incendiary weapons, such as white phosphorous used to mark targets, were standard in most modern armies. Napalm was important in antitank warfare and in attacks on fortified areas, especially caves, bunkers and tunnel complexes.

Faced with these facts, the negotiating states finally agreed to a 1980 Weapons Convention that does not ban napalm or other incendiary weapons as such. Instead, it prohibits the use of such weapons directly against civilian targets or their use when military utility is not clearly proportionate to the risk to civilian targets.<sup>38</sup>

There are provisions in the 1980 Weapons Convention regulating the use of land mines and other antipersonnel devices (such as "booby traps"). Again, there is no realistic possibility of prohibiting their use for reasonable military purposes.

Rather, the effort is to prohibit indiscriminate, irresponsible use of these means and to improve arrangements for protecting civilians in areas where they have been deployed.<sup>39</sup>

**Prohibiting the Use of Chemical and Biological Agents.** While consensus as to what weapons cause superfluous or unnecessary suffering remains elusive, major steps have been made to produce both conventional and customary international law prohibiting use of chemical weapons (CW) and biological weapons (BW). Gas warfare began in large scale in World War I, although it had been used to lesser extents in previous conflicts.<sup>40</sup> By the end of the war on the Western Front, use of gas sprayed from cylinders or fired in artillery shells was standard practice on both sides.

It could have been argued that CW was forbidden by Article 23a of 1907 Hague Convention IV, which prohibited use of "poison or poisoned weapons." However, the 1907 Hague Convention IV was essentially a codification of past customary practice. It is thus questionable that the ban on poison and poisoned weapons anticipated the kind of CW employed in World War I. Rather, it would be logical to assume that this provision referred to the kinds of use of poison and poisoned weapons employed in past wars, that is, poisoning food and water, shooting poisoned arrows, or stabbing with poisoned knives, lances, or bayonets.<sup>20(p59)</sup>

In any event, CW was widely used on the Western Front. However, this experience seems to have left a strong negative impression on military men. Gas warfare never proved decisive in battle but it caused huge casualties and made the miserable existence of the armies on both sides even more miserable. In short, gas warfare did not have a military utility proportionate to the damage and inconvenience it caused. It appears that this view has prevailed in most armed forces, in the stress of battle as well as in planning and training. Armed forces have needed to prepare for use of CW by enemies but they seldom have planned to initiate CW as a preferred strategy.

Military skepticism about the utility of CW coincided with the urge to ban or limit modern weapons after World War I. The 1925 Geneva Gas Protocol<sup>41</sup> prohibits "the use in war of asphyxiating, poisonous or other gases, and of analogous liquids, materials or devices," as well as "bacteriological methods of warfare." However, this prohibition was potentially fragile. In effect, the 1925 Geneva Gas Protocol is a "no first use" convention. Many states, in fact, ratified the Protocol with a reservation indicating that

they would not be the first to use CW, but reserved the right to retaliate with CW. The party that breaks the ban is subject to retaliation in kind with CW. Indeed, it would seem that in a war between two coalitions any member of a coalition in which one of its members is attacked with CW is entitled to retaliate in kind with CW against any member of the coalition to which the party initiating CW belongs.

Despite the risk that the 1925 Geneva Gas Protocol would become another "paper ban," to be broken readily under the stress of war, it survived because it was prohibiting the use of means that belligerents considered unreliable and likely to create more problems than they would solve. Before World War II gas was used by the Italians against the Ethiopians and the Japanese against the Chinese. But in World War II gas was not used at all. There were numerous occasions when CW might have proved decisive, for instance against the Allied invasions of Hitler's Europe and against Japanese forces holding out in the Pacific Islands. But neither side used CW. Abstention from use of CW continued in the Korean War and in the numerous revolutionary/counterinsurgency wars of the post-World-War-II era.

The United States had not ratified the 1925 Geneva Gas Protocol but by the end of the Korean War it was clear that the ban on gas was confirmed by customary international law. Accordingly, the use of so-called nonlethal CW by the US forces in Vietnam was controversial. The United States employed herbicide agents to destroy vegetation near roads subject to ambush. Herbicides were also used to destroy crops in areas firmly controlled by enemy forces. US forces used riot-control agents such as tear gas to flush out enemies hiding in tunnels and buildings in which civilians were also hiding. On the merits, these CW means were appropriate and proportionate to legitimate military objectives. Indeed, one of the ironies of the debates about use of riot-control agents was that their use in domestic disturbances in the United States and many parts of the world was considered humane whereas their use against enemy forces in Vietnam was condemned.<sup>37(pp248-266)</sup>

Nevertheless, recourse to these nonlethal means was unfortunate in that it could be seen as opening a "Pandora's Box" that would erode the ban on CW. The United States finally ratified the 1925 Geneva Gas Protocol in 1975 with a reservation permitting the retaliatory use of chemical weapons and agents. The United States continued to claim that nonlethal CW, such as employed in Vietnam, was distinct from the CW prohibited in the 1925 Geneva Gas

Convention. However, in a 1975 executive order by President Ford the United States renounced first use of herbicides in war except for use under regulations applicable to their domestic use in US bases and defense perimeters. Crop destruction does not appear to be contemplated in the order. The order also renounced first use of riot control agents except in defensive modes to save lives.<sup>27(¶6-4-¶6-5)</sup>

The ban on BW was strongly confirmed by the 1972 Convention on the Prohibition of the Development, Production, and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, signed in Washington, London, and Moscow.<sup>42</sup> Use of BW means is prohibited against persons, animals, or plants, because of its indiscriminate and uncontrollable nature.

The 1993 Paris Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction was ratified by the United States and many states throughout the world. The convention goes beyond prohibiting CW to arms control measures intended to eliminate CW capabilities. The problem is that implementation of the convention involves difficult problems of inspection and verification.<sup>43,44</sup>

A major achievement in the development of customary international law on CW occurred in the 1991 Persian Gulf War. Iraq had used CW against the Iranians and on their own Kurdish dissidents. Before Operation Desert Storm (the combat phase of the war) there was great concern over the probable use of CW by the Iraqi forces against the US-led coalition forces. The coalition forces went to great lengths to protect their personnel against CW attacks and to prepare for the treatment of CW casualties. However, there were apparently no plans to retaliate in kind with CW means in the event of Iraqi CW attacks. In any event, the Iraqis did not use chemical weapons<sup>45</sup> although the reasons for their restraint are not known.

**Deterring the Use of Nuclear Weapons.** There is no international legal prohibition against the use of nuclear weapons per se. A number of resolutions passed by the UN General Assembly and other international organizations and conferences condemn nuclear weapons but they do not have the force of conventional law. Instead, the threat of nuclear war has been addressed through arms control agreements designed to prevent nuclear confrontations by improving communications between potential nuclear belligerents (eg, the 1963 "Hotline" Agreement, the 1971 "Hotline" Modernization Agreement, the 1971 "Accidents Measures" Agreement, the 1973

Prevention of Nuclear War Agreement, and the 1987 Nuclear Risk Reduction Centers Agreement between the United States and the Soviet Union). Other Soviet-American arms control agreements sought to maintain stability in the superpowers' nuclear balance of deterrence forces (eg, SALT I [Strategic Arms Limitation Treaty I], which included the ABM [Anti-Ballistic Missile] Treaty and the Interim Agreement on Limitation of Strategic Offensive Arms).

More recently US-Soviet Union/Russian Federation agreements have mandated elimination or reduction of specified types of nuclear missiles and warheads (eg, the 1987 INF [Intermediate-range Nuclear Forces] Treaty requiring the destruction by both sides of all their intermediate-range missiles, the first agreement to eliminate a whole class of nuclear weapons). Moreover, the 1991 Strategic Arms Reduction Treaty (START) I called for a 50% reduction in Soviet ballistic missile warheads and a 35% reduction in American warheads. Under START I each side would have 6,000 total warheads on Inter-Continental Ballistic Missiles (ICBMs), SLBMs (Sea-Launched Ballistic Missiles), and bombers, with no more than 4,900 deployed on land-based or sea-launched ballistic missiles. The process of nuclear disarmament was continued in the 1993 US-Russian START II agreement.<sup>46</sup>

Efforts to protect the earth from nuclear testing and use in war are evidenced in the 1959 Antarctic Treaty, the 1963 Limited Test Ban Treaty, the 1967 Outer Space Treaty, the 1971 Seabed Arms Control Treaty, the 1974 Threshold Test Ban Treaty, the 1975 Peaceful Uses of Nuclear Energy (PNE) Treaty (concerning nuclear explosions for peaceful purposes), and the 1980 Convention on the Physical Protection of Nuclear Material. The Threshold Test Ban and the PNE treaties are bilateral US-Soviet agreements. The other treaties in this category are general conventions open to all states.<sup>46</sup>

The consensus that it is imperative to stop the spread of nuclear weapons to currently nonnuclear powers produced the 1968 Non-Proliferation Treaty to which most states are parties. However, Israel, India, and Pakistan, which all have nuclear weapons, are not parties to the Non-Proliferation Treaty. North Korea apparently has come close to developing nuclear weapons, although the United Nations and the International Atomic Energy Agency have been unable to verify the state of its nuclear program. Iraq and Iran are both parties to the 1968 Non-Proliferation Treaty but there is evidence that they are working to produce nuclear weapons.

It is clear that the states of the world are fully cognizant of the dangers of nuclear war to themselves and to the whole world. At the same time, many states claim the necessity of possessing nuclear weapons to deter nuclear or conventional aggression. There also appears to be a temptation to acquire nuclear weapons to further national power and prestige. Moreover, a number of states striving to acquire nuclear weapons are driven by deep ideological or religious motives that threaten their neighbors with irresponsible recourse to nuclear means (eg, North Korea, Iran, Iraq, India, and Pakistan).

Although there is no conventional international law (ie, treaty law) definitively dealing with the use of nuclear weapons (except in the Antarctic and outer space), it is possible to find an emerging rule of customary international (unwritten) law in the pattern of state practice since the American nuclear bombing of two Japanese cities, Hiroshima and Nagasaki, in 1945. Despite the development of nuclear capabilities and long-range means of delivery since 1945, and despite the bitter conflicts that have occurred in this period, there has been no further use of nuclear weapons in war. There is warrant for a claim that there is a rule of customary international law prohibiting first use of nuclear weapons. The Western nuclear powers have always stressed the deterrent role of nuclear weapons, which provide "assured destruction" and "unacceptable damage" through nuclear retaliation.

The United States, however, has never accepted a public "no first use" position, particularly during the Cold War, in order to maintain a nuclear deterrent against a massive Warsaw Pact conventional attack. The Soviet Union, historically, declined even more emphatically to agree to a "no first use" policy. The end of the Cold War may alter these attitudes but other considerations may incline nuclear powers to reject a "no first use" rule of international law.

International law depends on broad consensus on a subject within the international community. Consensus, however, is not simply a quantitative matter. According to the subject, the qualitative element in consensus counts a great deal. This qualitative element is based on the power of individual states and their relevance to the subject. For example, if 95% of the states agree on rules for outer space but these states have little or no capability to operate in space and the remaining 5% of the states are active in outer space, the consensus of the 95% will not produce effective rules of international law. Clearly most of the states of the world do not as-

pire to become nuclear powers and they would support a total ban on nuclear weapons. But the United States and Russia (and other successor states of the former Soviet Union such as Ukraine), as well as China, Britain, France, Israel, India, and Pakistan have nuclear capabilities and serious reasons to maintain them and deploy them in deterrent modes. Indeed, such deterrents may be needed to maintain the peace in many parts of the world, particularly as the threat of proliferation of nuclear capabilities to potential aggressor states grows. In these circumstances there appears to be little likelihood of a general prohibition of nuclear weapons in the international law of war. Interestingly enough, when the International Court of Justice was asked to rule in 1966 on whether the threat or use of nuclear weapons violated international law, the court was unable to conclude that the use of nuclear weapons was clearly prohibited.

### *Protection of Prisoners of War*

In contrast, the international law of war protecting prisoners of war (POWs) is highly developed.<sup>47,48</sup> Building on the 1907 Hague Convention IV and 1929 Geneva Convention, the 1949 Geneva Convention on Prisoners of War provides a comprehensive, detailed POW regime.<sup>49</sup> The protections of this legal regime are clearly intended for captured service personnel of the armed forces of sovereign states. The great number of armed conflicts involving revolutionary forces, however, have repeatedly raised the question whether members of such forces should be entitled to POW status and protection. (The issue of belligerent status for revolutionary governments and movements has already been discussed in the first part of this section.)

Viewed at the level of individual combatants, international law, as set forth in the 1907 Hague Convention IV, Article 1, and 1949 Geneva Convention (POWs), Article 4(2), requires that POW status should be given if the individual belongs to an organization with a responsible commander, wears "a fixed distinctive sign recognizable at a distance, carries arms openly," and is part of a unit that conducts its operations "in accordance with the laws and customs of war."

Most revolutionary units have a responsible commander, but the other requirements for POW status are often not met by such organizations. Their personnel usually wear civilian clothing, do not carry arms openly, and do not conduct their operations in accordance with the law of war. In the case

of the Vietcong and the PLO, for example, there were grounds for denying belligerent status to captured members of these organizations. Nonetheless, it must be conceded that they were not common criminals. The American–South Vietnamese and Israeli resolution of the problem was to deny that the Vietcong and PLO captives were entitled to POW status but to accord them treatment roughly equivalent to that required for bona fide POWs. Most important, this involved allowing the International Committee of the Red Cross (ICRC) to visit and monitor the treatment of the captives.

The first right of a POW is the right to survive capture. Under Articles 23c and 23d of the 1907 Hague Convention IV it is especially forbidden "[t]o kill or wound an enemy who, having laid down his arms, or having no longer means of defence, has surrendered at discretion" or "[t]o declare that no quarter [shelter] will be given." Once captured, the POW should be removed from combat areas as promptly as possible. The detaining power should give notification of the names of detained POWs through a Protecting Power, a neutral state designated by a belligerent to represent its interest.

The POW regime, codified in the 1907 Hague Convention IV, Articles 4 through 20, and in the comprehensive provisions of the 1949 Geneva Convention (POWs), requires that POWs have decent living conditions and medical, religious, recreational, and postal services. There are detailed rules concerning discipline in POW camps. Provision is made for termination of captivity. These and other aspects of the POW regime are subject to the supervision of the International Committee of the Red Cross, which has greatly influenced treatment of POWs, even in the most intractable of armed conflicts. It is well known, however, that POWs have been sorely abused and mistreated in many recent wars. The North Koreans and Chinese in the Korean War and the North Vietnamese in the Vietnam War denied the ICRC access to POWs it detained. Gross violations of the POW regime, beginning with denial of quarter, followed by death marches, incarceration of POWs without adequate lodging, food, or medical assistance, as well as intimidation and torture, were rampant.<sup>37,47(pp172ff,312ff)</sup>

Reprisals against POWs are prohibited by the 1949 Geneva POW Convention. Moreover, states such as the United States do not retaliate in kind when their captured service men and women are abused. In any event, there is reason to believe that retaliation against POWs from states such as North Korea or North Vietnam would not elicit changes



in the illegal POW policies of those states. Despite these failures of the POW regime, however, its successes are evidenced by the fact that millions of POWs in modern wars have survived and returned home.

### *Protection of the Wounded and Sick*

Provisions for the protection of the wounded and sick go back to the 1864 Red Cross Convention. Protection of the wounded and sick on land was also provided in the 1929 Geneva revision of the 1864 Convention and in the current 1949 Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field (GWS).<sup>50</sup> Protection for the wounded and sick at sea was provided in the 1907 Hague Convention X and is presently provided by the 1949 Geneva Convention for the Amelioration of the Condition of the Wounded, Sick and Shipwrecked Members of Armed Forces at Sea (GWS-SEA).<sup>51</sup>

Article 12 of the 1949 GWS Convention prescribes the treatment to be given the wounded and sick. It prohibits any discrimination on the basis of nationality, sex, religion, or political opinion. Torture or subjection to biological experiments is prohibited. Proper treatment of women is demanded.

The 1949 GWS gives detailed provisions for collecting and caring for the wounded and sick, including religious services, and for proper disposal of the dead. There are extensive provisions for protection of medical units and personnel and for medical aircraft. The Convention prescribes the use of the distinctive Red Cross (or Red Crescent or Red Lion and Sun) emblem.

The 1949 GWS-SEA Convention repeats the basic protections of GWS and adds provisions on protection of shipwrecked members of the armed forces. The term "shipwrecked" includes forced landings at sea by, or from, aircraft. The conditions under which hospital ships are immune from attack are delineated, including the proper placement of the distinctive emblem, as well as the conditions for immunity of medical and religious personnel.

### *Expectations Regarding Belligerent Occupation*

Conventional law regulating belligerent occupation is found in some parts of the 1907 Hague Convention IV and in the 1949 Geneva Convention Relative to the Protection of Civilian Persons in Time of War.<sup>52,53</sup> It is important to understand the premises of this body of international law. The law of belligerent occupation assumes situations in which part

of the sovereign territory of one belligerent has been occupied by the armed forces of another sovereign state with which it is at war. This occupation is termed "precarious" because it depends on the fortunes of war. However, the law of belligerent occupation should come into effect when a belligerent has established firm control of the enemy's territory and appears to be capable of retaining control for a substantial period.<sup>28(pp1876ff),54,55</sup>

The theory in legal doctrine is that the original sovereign having been temporarily replaced, the occupying power should take over the basic functions of government in the areas it controls. The occupying power is allowed to take all reasonable measures to ensure security of its forces as it continues the conflict beyond the occupied area. At the same time, the occupying power is expected to maintain law and order, assure at least the minimal governmental functions necessary to the population, and to render relief services if needed and within its capabilities. The occupied population, however much they may resent their forces' defeat and the occupation, are expected to cooperate with the occupying power in order to maintain some minimal standard of living during the occupation.

Two principles are particularly important in the law of belligerent occupation. The first is implied in the concept of "precarious occupation." Because the occupation is temporary, no fundamental changes should be made in the civil order and the economy of the occupied territory. While laws, institutions, and practices that are violative of human rights can be overturned, as in the occupation of the territory of a tyrannical, oppressive regime, such as Nazi Germany, the ordinary laws, institutions, and practices found in most societies should be continued. The occupying power usually rules by military government while continuing in office those middle- and lower-level governmental personnel who continue their necessary functions under the direction of the military government.

Although the occupied population is expected to cooperate with the occupying power and not engage in subversive activities, they are not to be forced to take part in the war against their own side. Private property should be protected from pillage by the occupying forces, both in combat zones and in occupied areas. Articles 47 through 54 of the 1949 Geneva Convention regarding treatment of civilians<sup>53</sup> prohibits a number of practices branded as war crimes in World War II, such as mass deportations to other countries or areas, and forced labor.

Two kinds of situations challenge the premises

of the law of belligerent occupation. The first is one in which serious resistance movements develop within occupied territories, by spontaneous actions of some of the inhabitants or regular forces left behind to continue the war or, often, some combination of both as was the case in Russia in World War II. As the activities of the resistance forces develop, the occupying power attempts to deter and defeat them by counterforce operations. This is a legitimate use of force. Very often, however, purely counterforce operations do not suffice and the occupying power turns to various reprisals against the civilian population on the theory that the resistance forces could only operate with the support, or the acquiescence, of the population. A typical (though illegal) tactic is to punish a town or locality where resistance forces have struck. Such reprisals, including the taking and killing of hostages, wholesale destruction of population centers, indiscriminate roundups of suspects who are denied due process, mistreated, and tortured, are prohibited by Articles 31 through 34 of the 1949 Geneva Civilians Convention.<sup>53</sup>

The dilemma for civilians in occupied areas is that they cannot expect some of their number to continue the war by irregular warfare behind the front and still benefit from protection and services of the occupying power. To be sure, resistance in wars such as World War II is often engendered in the first place by failure of the occupying power to honor its duties under the law of belligerent occupation. On the other hand, even a law-abiding occupying power will be disinclined to continue to perform its legal duties to a population that supports directly or indirectly resistance operations endangering its security.

The other situation confounding the law of belligerent occupation is that of civil war. As with much of the law of war, difficulties arise from the fact that belligerents in modern wars often are not sovereign states but dissident movements within sovereign states. These revolutionaries usually claim to be the rightful sovereign, engaged in overthrowing an unjust regime. If they occupy some territory more or less permanently they do not consider it to fit the concept of occupied territory on which the law of belligerent occupation is based. On the other hand, it is often the case that revolutionary forces, particularly in the early stages of a civil war, cannot hold much territory for long. Or they may only be able to hold remote, inaccessible areas where there is little need for normal governmental services.

When, however, revolutionary forces do hold

populated areas for prolonged periods, their relations with the indigenous population can vary greatly. Sometimes the local population may support the revolutionaries. However, the local population may favor the incumbent regime or simply be neutral. In these cases, revolutionary forces are inclined to impose very harsh policies, intimidating and exploiting the local population. Clearly such conduct is violative of the international law of belligerent occupation. As is the case with the other parts of international war-conduct law, civil wars usually challenge the authority of laws that were developed primarily for the armed forces of sovereign states in international wars.

The foregoing survey of modern international war-conduct law has set forth the principal legal prescriptions that a law-abiding belligerent power should follow. It has also recognized that some belligerents, particularly totalitarian regimes and adversaries in revolutionary / counterinsurgency wars, frequently violate international war-conduct law. This raises a fundamental question: What sanctions exist to enforce the international law of war?

### *Sanctions for Violations of the International Law of War*

The US Army's Field Manual 27-10, *The Law of Land Warfare* states that there are two remedies for violations of the international law of war: reprisals and war crimes proceedings. Reprisals are defined as "acts of retaliation in the form of conduct which would otherwise be unlawful, resorted to by one belligerent against enemy personnel or property for acts of warfare committed by the other belligerent in violation of the law of war, for the purpose of enforcing future compliance with the recognized rules of civilized warfare."<sup>36(¶497a)</sup> *The Law of Land Warfare* gives as an example "the employment by a belligerent of a weapon the use of which is normally precluded by the law of war would constitute a lawful reprisal for intentional mistreatment of prisoners of war held by the enemy."<sup>36(¶497a)</sup>

There are a number of problems with recourse to reprisals to force an enemy to cease violating the law of war. The first is that all four of the 1949 Geneva Conventions prohibit reprisals against POWs and civilians, forbidding retaliation in kind for some of the most common violations of the law of war. The second is that recourse to a weapon "normally precluded" comes down to use of chemical warfare (CW) or biological warfare (BW), which, as discussed above, are the only weapons clearly prohibited by the law of war. As previously dis-

cussed, both law and good policy would condemn recourse to CW or BW as reprisals. This leads to the third problem with reprisals, namely, their use tends to create a retaliatory spiral of illegal measures by adversaries that can destroy major parts of the law. A major example is the experience in World War I where the opposing navies competed in violating traditional principles of the law of maritime warfare to the point where there was no such law in effect by the end of the war.

Another example of problems with reprisals involves chemical warfare in World War I. The Germans employed gas first. The Allies' reaction was not a series of discrete retaliatory acts, that is, retaliating in kind with their own chemical means. Rather, the Allies' developed and used gas warfare as a standard tactic throughout the rest of the war. They then unwisely condemned the German use of chemical warfare in a provision of the Versailles Treaty. Practically speaking, despite Allied claims, use of chemical warfare was not "rightly condemned" at the end of the war; it was standard practice for all forces that had chemical warfare capabilities.

The other sanction for the law of war suggested by *The Law of Land Warfare* is war crimes proceedings.<sup>36</sup>(¶497, ¶505–¶509) Ideally, persons charged with violations of the law of war should be brought to trial before a fair tribunal whose judges are knowledgeable in military science and the international law of war. Unfortunately, there have been difficulties establishing such tribunals.

The principal problem with war crimes proceedings is the inability to take control of the alleged war criminals so that they can be brought to justice. Generally, this can only be solved in cases where there is a complete victory over forces in whose ranks are alleged war criminals, as in the case of Germany and Japan after World War II. Critics of the Nuremberg and Tokyo trials complained of "victors' justice" and there are genuine issues concerning the fairness of those and other war crimes trials. Without a "victor," however, there is little or no likelihood of bringing alleged war criminals to justice.

This problem became clear in the Korean War. Gross violations of the law of war, particularly with respect to POWs and civilians, were widely known. The United Nations command set lawyers to work preparing for war crimes trials. Unfortunately, there was a stalemate instead of a victory and there were no UN war crimes trials. Likewise, there was no US victory in Vietnam and thus no trials of the North Vietnamese who had tortured and mistreated US POWs. There was a military victory in the Persian Gulf War, but not total victory as in the case of Ger-

many and Japan. The civilian and military personnel guilty of the rape of Kuwait, of massive crimes against the environment (such as setting the oil fields on fire), of indiscriminate attacks on Israeli and Saudi population centers with Scud missiles, and other crimes were not punished.

A second problem with war crimes proceedings as a sanction for the law of war is that they can be outrageously abused. In the Korean and Vietnam wars the communist powers claimed that all captured POWs were war criminals per se, undeserving of POW protections. Had communist POWs been tried by the allies, this would have simply encouraged ludicrous trials of the POWs held by the communists, as a retaliation.<sup>37</sup>(pp312ff),<sup>47</sup>(pp316)

Over the past several years, there have been two significant developments relating to the enforcement of international laws relating to armed conflict. First, the United Nations has established two special war crimes tribunals—The International Criminal Tribunal for the Former Yugoslavia (ICTFY) and The International Criminal Tribunal for Rwanda (ICTR). Both of these tribunals are empowered to indict and try individuals for a variety of crimes related to the conflicts in those areas. Second, under the auspices of the United Nations, a statute for an International Criminal Court has been drafted. Although this court has yet to be formally established, it will provide the type of standing body that could try individuals for violations of the *jus in bello*.

It must, of course, be recognized that there are evil and irresponsible regimes in the world and that they will usually not feel obligated to obey the law of war by the threat of reprisals or war crimes proceedings. What then should a law-abiding state, faced with such an enemy, do? The law-abiding state should hold to its own values and obey the law itself because it is the right thing to do. This is not an unrealistic injunction. Wars are not usually won by illegal behavior. Massive air attacks on population centers in World War II did not prove decisive. Such indiscriminate attacks certainly contributed to the defeat of Nazi Germany but they did not force the German and Japanese people to demand surrender. If anything, they encouraged a spirit of resistance—as was also the case in Britain pounded by the *blitzkrieg*. Post-World-War-II critiques of strategic bombing suggested that many of the military assets that it required could have been put to better use in counterforce attacks on strictly military targets.

To be sure, this argument can be countered with the success of the atomic bomb at Hiroshima and

Nagasaki in ending the war. This case is unique. It happened when the United States was the only country with atomic weapons. Today there are many nuclear powers. First use of nuclear weapons would risk initiating a nuclear war unacceptable to any sane decision maker. As previously observed, no nuclear power has employed nuclear weapons in war since 1945.

The argument, then, for restraint is twofold: respect for the law and recognition that its violation is not a shortcut to military success and may engender problems that will haunt the wrongdoer in the future. There remains the question of how a lawful belligerent can promote observance of the law in its own armed forces.

### The War-Conduct Law in Just War Doctrine

War-conduct law is based on principles in waging war. These include the principle of proportion and the principle of discrimination. The principle of double effect is utilized in interpreting the principle of discrimination. The discussion will conclude with a special case: nuclear deterrence and war.

#### War-Conduct Principles in Waging War

The war-conduct law of just war doctrine, in contrast to the detailed prescriptions of international law, consists of two basic principles, proportion and discrimination. These principles, of course, parallel those discussed above, as central parts of the legal principles of military necessity and humanity. Just war doctrine endorses generally the detailed prescriptions of the international law of war. There are, however, differences in the way that proportion and discrimination are interpreted in the international law of war and just war doctrine, as the discussion in this section will demonstrate.

**The Principle of Proportion.** The war-conduct law of just war doctrine begins with the same concept of proportion as that found in the international law of war. Military actions must be proportionate to the legitimate military ends to which they are directed. It will be recalled, however, that there is also a principle of proportion in the war-decision law of just war doctrine. The war-decision law of just war doctrine requires that the overall means used to achieve the just cause must be proportionate to the good achieved, in the light of the probability of success. Just war doctrine does not mandate the pursuit of a just cause by any and all means, only by proportionate means. This affects the interpre-

tation of the war-conduct principle of proportion in just war doctrine.

It is possible that a pattern of conduct in which most discrete actions are proportionate to legitimate military ends might still be deemed disproportionate in the war-decision calculus of proportionality of means to the just end. War-conduct law evaluates proportionality at the tactical and strategic levels of military necessity (in French, *raison de guerre*). War-decision law evaluates proportionality at the level of grand strategy (in French, *raison d'état*). Because the ultimate aim of the just war is to achieve overall proportionality in the use of means to achieve the just cause, considerations of war-decision proportionality must guide war-conduct proportionality.<sup>20</sup>(pp27–31,38–42)

An example is provided by the American experience in Vietnam. The American military objectives, namely, to defend South Vietnam against indirect and direct aggression, and to build a viable democratic polity, secure from communist tyranny, were eminently just. In pursuit of these objectives, US forces engaged in a long war in which tens of thousands of decisions were made about war-conduct proportionality at the strategic and tactical levels. Some of these decisions resulted in measures disproportionate to the military objectives and some may not even have had a legitimate military objective. But the overwhelming majority of the decisions resulted in actions proportionate to the military objectives as judged by the responsible commanders. It may well have been the case, however, that the cumulative effects of the American strategies and tactics produced a pattern of actions that might be judged disproportionate to the overall just cause. This would be particularly true when viewed in the light of the probability of success, which declined as the long war continued. Viewed in retrospect, it might have been better had the United States not waged the long, ultimately losing, war even though the cause was just.

The practical implication of the relation of war-decision law to war-conduct law in just war doctrine is that the highest military commanders and civilian officials must control military strategy and tactics with guidance based on their overall evaluation of the proportionality of means to the just cause. This evaluation must be continuous, starting with the decision to go to war and continuing through the course of the war, strongly influenced by changing estimates of the probability of success. A war may start with the promise that a contemplated grand strategy and its strategic and tactical



components will produce results reasonably proportionate to the just cause. As the war progresses this judgment may turn out to be unrealistic. At this point the highest civilian and military leaders have to decide whether to change strategies and tactics or, in the worst case, terminate the war.<sup>20(pp27–28,94–96)</sup> The concept of proportion in war conduct has not received the attention it deserves in recent just war scholarship. Most attention has been fixed on the principle of discrimination.

**The Principle of Discrimination.** The principle of discrimination or noncombatant immunity is considered by just war theorists to be the main source of restraint on belligerents purporting to wage a just war. Discrimination is treated as a moral principle, not simply as a principle derived from long belligerent practice. This is ironic because, in fact, the principle of discrimination was strongly influenced by belligerent practice, greatly influenced by the standards of chivalry, and incorporated into just war doctrine by the Scholastics well after St. Augustine and St. Thomas Aquinas.<sup>12(pp26,43ff,196ff)</sup> Nevertheless, the principle of discrimination is held out by church authorities, such as the American Catholic Bishops in their 1983 pastoral,<sup>26(pp33–34)</sup> and the leading modern just war writers, such as Ramsey<sup>21(pp143–147,428–432)</sup> and Walzer,<sup>24(pp138–159)</sup> as an immutable moral principle.

The issue much debated in just war scholarship and the pronouncements of religious bodies and authorities is the meaning of the principle of discrimination and its implications for contemporary strategies of deterrence and war. The very definition of the principle of discrimination invites competing interpretations. The principle prohibits direct, intentional attacks on noncombatants and civilian targets. It is necessary, then, to define in each case what is a “direct” attack, what is “intentional,” who is a “noncombatant,” and what is a “civilian target.”

Making these determinations has always been difficult but the diverse forms of modern deterrence and war increase the difficulties. Nuclear weapons that threaten noncombatants and civilian targets in huge areas of the globe are at the upper range of deterrence and war. Weapons that cannot be employed in populated areas without causing great damage to noncombatants and civilian targets are at the level of conventional war. Finally, at the level of revolutionary/counterinsurgency war is the prospect of warfare carried out literally within the civilian society, the civilians being the “sea” in which Mao’s revolutionary fish swim, pursued by the counterinsurgents.

To complicate the problem further, modern con-

cepts of “total war,” whether conventional or at the revolutionary/counterinsurgency level, will often deny that noncombatants or civilian targets should be immune from attacks because they are essential components of the enemy’s total war effort. This is not a new development. Sherman and Sheridan waged total war against Confederate noncombatants and deliberately destroyed nonmilitary targets. The Allies conducted a successful hunger blockade against Germany in World War I. The “United Nations” (as the Western Allies referred to themselves during World War II) carried out “city busting” strategic air raids against the Germans and Japanese with the declared intention of breaking the will of the civilian population. In modern civil wars, often waged between different ideological, religious, racial, or ethnic groups, mere membership in the enemy class warrants direct intentional attack.

Confronted with the dilemmas of reconciling the principle of discrimination with the massive destruction of modern warfare, some turn to various forms of pacifism. Some, notably nuclear pacifists, deny the possibility of a just nuclear war or even a just nuclear deterrent posture. Others, reacting to the development of ever more destructive conventional war capabilities, are abandoning just war doctrine, asserting that if just wars were ever possible in the past they are no longer possible. Still others deny the possibility of *any* just war. All of these positions could be based on interpretations of the principle of proportion but the usual emphasis is on the principle of discrimination. These various forms of pacifism are influential but they remain a minority view.

Most morally concerned people concede the necessity of some form of deterrence and defense in a world manifestly threatened by aggression and human rights violations in many parts of the world. They then struggle to find ways to reconcile the requirements for efficacious deterrence and defense with the principles and proscriptions of international law and some kind of just war doctrine. This brings them to confront the problem of interpreting the principle of discrimination. Most would insist that the principle must be interpreted to protect noncombatants and civilian targets from direct intentional attack. They would reject the “total war” concept that noncombatants and civilian targets, indeed whole societies, should be subjected to direct intentional attack. This leaves the issue of defining “direct,” “intentional” attacks.

**The Principle of Double Effect.** Given the dilemmas of maintaining the principle of discrimination

while accepting the destruction caused by modern weapons and methods in areas containing noncombatants and civilian targets, recourse is generally had to the principle of double effect. The principle is explained by a leading moralist, McCormick, and by the political philosopher Walzer (whose book, *Just and Unjust Wars*, is the most influential work on just war doctrine).

McCormick states:

It is a fundamental moral principle [unanimously accepted by Catholic moralists] that it is immoral directly to take innocent human life except with divine authorization. "Direct" taking of human life implies that one performs a lethal action with the intention that death should result for himself or another. Death therefore is deliberately willed as the effect of one's action. "Indirect" killing refers to an action or omission that is designed and intended solely to achieve some other purpose(s) even though death is foreseen as a concomitant effect. Death therefore is not positively willed, but reluctantly permitted as an unavoidable by-product.<sup>56(p805)</sup>

Walzer's version of the principle of double effect is:

The intention of the actor is good, that is, he aims narrowly at the acceptable effect; the evil effect is not one of his ends, nor is it a means to his ends, and, aware of the evil involved, he seeks to minimize it, accepting costs to himself.<sup>24(p155)</sup>

Acceptance of the principle of double effect is the majority position among moralists and ethicists discussing just war doctrine. However, whatever the validity of the principle may be when applied to other subjects, we find it unacceptable as part of just war doctrine. The heart of our disagreement lies in that part of Walzer's definition when he requires that the action "is not a means to his ends." Moreover, we reject McCormick's treatment of intention and the distinction between "direct" and "indirect" killing.

We contend that the actor making a decision to attack a military target that is collocated with noncombatants and civilian targets "intends" all the probable consequences of his attack. Anticipating that his attack will, unavoidably, cause both military and civilian damage, the civilian damage is "a means to his [military] ends." For example, suppose at the level of revolutionary / counterinsurgency war, the insurgents have taken over a village, fortified it, and intermingled with its inhabitants. The insurgents fire on a counterinsurgent patrol. The

patrol calls in reinforcements to attack the village after preliminary artillery barrages and air strikes. There is no way that the counterinsurgents can successfully defeat the insurgents without inflicting severe casualties on the noncombatants and great destruction to the village. The legitimate military end requires the use of means that inevitably will cause civilian damage. To say that in these attacks counterinsurgents do not "intend" to cause such damage and that it is not a "means to their [military] end" is a proposition that does not provide a morally acceptable excuse for having inflicted damage and injuries on noncombatants.

At the level of conventional war, in the Persian Gulf War the coalition forces launched sophisticated air and cruise missile attacks on legitimate military targets in Baghdad. It has long since been demonstrated that no amount of sophisticated military hardware and delivery systems can ensure that attacks in a heavily populated area will not cause noncombatant casualties and serious damage to civilian targets. To say that this damage is not intended when these weapons are launched is to deny reality.

Our approach begins with the proposition that the principle of discrimination is not absolute. The principle was not absolute in its historic origins, which were to be found as much, if not more, in customary practice as in moral doctrine. The principle was not, until very recently, clearly articulated and applied in the pronouncements of the Catholic Church and other churches. Moreover, if the principle is really absolute and the only way around it is recourse to the principle of double effect, preservation of the principle comes at the price of a dubious escape clause couched in terms that could strike ordinary people, such as military commanders, as double talk.

The principle of discrimination can retain its role as a major limit on war conduct by combining it with the principle of proportion. The principle of discrimination should always start with the prohibition of direct intentional attacks on noncombatants and civilian targets. However, it should be recognized that direct intentional attacks on legitimate military targets may unavoidably cause what strategists call collateral damage (McCormick's concomitant damage). Here is where proportionality comes in. Collateral damage to noncombatants and civilian targets must be proportionate to the legitimate military necessities of the action.

Indeed, Walzer's original formulation of the principle of double effect, implicit in the refined definition quoted above, requires that, "The good effect

is sufficiently good to compensate for allowing the evil effect; it must be justified under Sidgwick proportionality rule."<sup>24(p153)</sup> Sidgwick's proportionality rule requires that individuals "weigh 'the mischief done,' which presumably means not only the immediate harm to individuals but also any injury to the permanent interests of mankind, against the contribution that mischief makes to the end of victory."<sup>24(p129)</sup>

To return to the two examples discussed above, if the enemy fire from the fortified village is relatively light and the fact that the village is in insurgent hands does not present a major military problem, the counterinsurgents' reaction against this mixed military-civilian target should be restrained. In such a case, massive ground, artillery, and air attacks would violate the principle of discrimination as well as the principle of proportion. Even a limited reaction by the counterinsurgents will endanger non-combatants and civilian targets but the resulting collateral damage will be proportionate to the military necessity of dealing with the fortified village.

In the case of the air and missile attacks on Baghdad, awareness of the likelihood of some collateral damage should compel the attacking force to attempt to limit such damage to what is proportionate to the military necessities of taking out the targets. The principle of discrimination should also oblige the attacking force's leaders to define very clearly the importance of the military targets to be destroyed and estimate the probable amount of collateral damage. If it is concluded that the risks of collateral damage are very high and the importance of the military targets is not so high, these targets in a mixed military/civilian location should not be attacked.

It may well be that our approach and that of Walzer and others who require the principle of double effect to reconcile war-conduct with the principle of discrimination may, in practice, come to similar results. Both approaches counsel restraint in attacking mixed military/civilian targets, sometimes even to the extent of abstention from attacks justified by military necessity. When, however, the exigencies of military necessity are very critical, high collateral damage may be the price of pursuing a just war.

The grave problems of reconciling the principle of discrimination with the military necessities of modern warfare have been exacerbated by the practice of some belligerents of deliberately hiding their combatants behind noncombatants and civilian targets. Guerrilla forces, such as the Vietcong during the Vietnam War, routinely intermingle with non-

combatants and fight from civilian areas so that it becomes impossible to do battle with them without causing collateral damage. For example, the North Vietnamese parked antiaircraft batteries, artillery, and military vehicles on city streets in residential neighborhoods, as did the PLO in the 1982 Lebanon War and the Iraqis in the Persian Gulf War. In 1982, the PLO placed antiaircraft batteries on the roofs of hospitals in Lebanon, and fought a siege battle in Beirut that resulted in great civilian damage and loss of life.

Such behavior is morally reprehensible. It does not relieve an attacking force from observing the principle of discrimination and the duty to limit collateral damage proportionately to the requirements of military necessity but it leaves the belligerent that fights from civilian locations with the major responsibility for inevitable collateral damage.

The just war principles of proportion and discrimination have been discussed with reference to conventional international and revolutionary/counterinsurgency wars. There remains the most difficult subject in just war doctrine: nuclear deterrence and war.

### *A Special Case: Nuclear Deterrence and War*

The concept of nuclear deterrence combines war-decision and war-conduct principles in a unique way. The potential for massive casualties, destruction, and environmental contamination in nuclear war has caused most responsible people to conclude that no such war should ever be fought. Yet nuclear forces have been developed by some nations and other nations are trying to develop their own nuclear capabilities. There are two related reasons for this fact.

The first reason to develop and maintain nuclear weapons is to deter potential enemies possessed of nuclear weapons from using them for intimidation or actual use in aggressive war. The second reason for having nuclear war capabilities is the belief that there is a threat from a potential enemy not only of total defeat in war but of total subjugation in the event of the enemy's victory. In the approximately four decades of the Cold War era, the United States and its allies believed that it was absolutely necessary to possess nuclear capabilities to deter and defend against Soviet/Warsaw Pact aggression, both nuclear and conventional. The United States and its allies also believed that capitulation, whether through intimidation by a Soviet superiority in nuclear capabilities or as the result of ac-

tual defeat by Soviet forces, would put Western Europe and even the United States in a situation in which the tyranny of the Soviet totalitarian regime would be extended to all or most of the free world. Note that, in the first instance, the Western nuclear deterrent/defense posture was designed to deal with the Soviet nuclear threat, but that concern for the consequences of defeat by the Soviets was so great that nuclear deterrence/defense was extended to the threat of Soviet conventional aggression.

This rationale for nuclear deterrence/defense may be mostly overtaken by the events since the breakup of the Soviet Union in 1991 and with it the end of the Cold War. Nevertheless, it remains relevant to many possible situations in which local potential aggressors, if possessed of nuclear weapons, might pose the dual threat of nuclear intimidation or destruction, and imposition of tyrannical regimes on the victims of their aggression. Such dual threats could well be posed by states such as Iran, Iraq, or North Korea.

In judging the moral permissibility of nuclear deterrence/defense it then becomes necessary to look in each case at the degree of threat a particular state faces, both in terms of nuclear or other aggression and of the consequences of capitulation or defeat in war. In war-decision terms, just war doctrine would look to the overall proportionality of nuclear deterrence/defense to the threat, particularly of nuclear intimidation or aggression, but also of conventional aggression, backed up by nuclear threats, balanced with the probable consequences of defeat for continued existence of the defeated society. In war-conduct terms, just war doctrine would evaluate the proportionality of nuclear or conventional responses to the threat or use of nuclear weapons by an aggressor.

Deterrence is not a new subject. The existence and deployment of armed forces have always had a deterrence purpose. However, deterrence has become a particularly critical concept in the nuclear age. The great desire of nuclear powers is that their nuclear postures prevent nuclear war by discouraging any idea of launching nuclear war. The formula developed in the nuclear age is that a deterrent posture must be based on clear nuclear capabilities sufficient to survive an aggressor's nuclear first strike and on a credible will to impose unacceptable damage on the aggressor in retaliation.<sup>57-59</sup>

This concept of deterrence changes the concept of proportionality. Nuclear deterrent proportionality is, in effect, based on disproportionality. The potential nuclear aggressor must not simply perceive that the potential victim can defend itself with

proportionate means. The aggressor must perceive that the potential victim will respond with means so disproportionate to the threat and so unacceptable to any rational actor that nuclear aggression is unthinkable. There is a deep irony in this concept. The kind of nuclear deterrent threat that is likely to be most effective is almost certainly based on the intention to do something that is grossly disproportionate and clearly immoral. Yet the fruit of this disproportionate deterrent threat may very well be the avoidance of nuclear war. It is fair to say that modern just war doctrine has not resolved the dilemma of reconciling credible threats to conduct disproportionate nuclear war with the commendable goal of deterring the initiation of nuclear war.<sup>60</sup>

Attempts have been made, however, to broaden the options available to a power seeking to deter nuclear aggression. The extreme posture of deterrence is mutual assured destruction (MAD). In MAD, the deterrent threat is to launch unlimited war in retaliation for any nuclear first-strike by an aggressor. This threat clearly implies massive destruction of population centers. But the threat is posed in the belief that its very extremity will deter nuclear war altogether. This posture is sometimes known as a deterrence only strategy. Its purpose is to deter, and a failure of deterrence is considered a catastrophe beyond repair, so comparatively little effort is made to develop limited nuclear war-fighting strategies. Indeed, it is often argued by deterrence-only strategists that the very suggestion that there might be limited nuclear wars undercuts the credibility of MAD deterrence postures.<sup>57(pp5,44,71-79)</sup>

From time to time the United States, notably in the Nixon, Carter, and Reagan administrations, has explored the possibility of deterrence-plus nuclear postures. Such postures confront the possibility of deterrence failing and seek alternatives to the full nuclear second strike response to nuclear aggression threatened in MAD. The essence of deterrence-plus nuclear postures is an emphasis on counterforce rather than countervalue targeting. Countervalue strategies contemplate direct attacks on enemy population centers, it being thought that a potential aggressor would not risk retaliatory strikes against its civilian population, presumably that which it most values.

Counterforce strategies attempt to limit nuclear targets to military targets for several reasons. First, such limitation may possibly be reciprocated, avoiding a succession of horrendous city-swapping exchanges. Second, counterforce attacks may so cripple the enemy's nuclear capabilities as to limit his ability to wage nuclear war. Third, it may be that a ruthless



regime may “value” its military and military-industrial assets more than its own population. Fourth, some deterrence-only strategists are compelled by their moral values to reject strategies that would be grossly disproportionate and indiscriminate.<sup>57(pp5–6,44,69–72)</sup>

There are several critical problems with the deterrence-plus strategy. First, it requires weapons and delivery systems sufficient to penetrate enemy defenses and take out substantial portions of their nuclear and conventional assets. Second, it requires extraordinary command, control, communications, computers, and intelligence (C<sup>4</sup>I) capabilities that may not yet have been developed. Third, and very critical, a counterforce strategy confronts the dilemma of attack with very powerful nuclear weapons on military targets that are collocated with civilian targets. Given the destructive power of nuclear weapons and the extreme hazards of radioactive fallout, it may be impossible to destroy key military targets without massive collateral damage. Such counterforce attacks would obviously be preferable to all-out nuclear attacks that explicitly target cities as such. But, given the difficulties of developing the capabilities necessary for effective counterforce deterrence and defense and the problem of attacking military targets collocated with civilian targets, is such a strategy either realistic or moral?<sup>60(pp173–182)</sup>

It appears that this question has never really been answered because the efforts necessary to develop a credible counterforce capability have not been made. Moreover, the whole debate over nuclear deterrence/defense strategy has shifted since the breakup of the Soviet Union. While Russia, the Ukraine, and other former Soviet entities still have nuclear capabilities, they do not presently threaten the United States and its Western allies. The great concern now is deterrence/defense aimed at smaller present and potential nuclear powers, some of them “rogue” states such as North Korea, Iraq, and Iran. While these smaller powers do not approach the level of nuclear capability of the former Soviet Union, their radical policies force the stable nuclear powers to rethink their nuclear deterrence/defense postures. Finally, there is the reality of a serious Chinese nuclear capability that could pose a greater threat in the future.

Just war thinkers have had great problems dealing with nuclear dilemmas. A substantial number reluctantly concede the need for some kind of nuclear deterrence, but they clearly have in mind a deterrence-only posture. Deterrence-plus, envisaging possible failure of deterrence and the necessity for limited nuclear war-fighting, is generally re-

jected. This, however, leaves those accepting deterrence-only with two serious problems.

First, it means that they offer no moral guidance for the case of deterrence failing. Indeed, there is a tendency for just war moralists to place all their hopes in the success of deterrence while condemning any use of nuclear weapons. In effect, they accept possession and deployment of nuclear deterrence forces but condemn their actual use in war as immoral. Taken seriously, this would mean that a deterrence-only posture would be built on a bluff, which, if called, would collapse. The second serious problem with acceptance of deterrence-only postures, as noted above, is that it relies on the threat of extremely disproportionate and indiscriminate nuclear retaliatory actions. It is an uncomfortable position for a moralist to base deterrence on the threat to do something that, if actually done, would be profoundly immoral.

Clearly, the dilemmas of nuclear deterrence/defense require a combination of both the war-decision and war-conduct elements of just war doctrine. In particular, the need to evaluate the proportionality of nuclear deterrence/defense strategies must finally be made at the war-decision rather than the war-conduct level. During the Cold War the proportionality of the US/NATO deterrence/defense posture was based on two things: (1) the threat of nuclear and conventional attack by the Soviet Union/Warsaw Pact; and (2) the prospects of a Communist victory that would reduce free countries to totalitarian rule. It was possible to argue that the US/NATO nuclear threat and possible execution of it in nuclear war was proportionate to the need to deter Soviet military aggression and its consequences if successful.

The end of the Cold War removes this particular case for proportionality of a nuclear deterrent/defense posture. Just war thinkers must now evaluate existing and future cases of nuclear deterrence/defense postures to judge whether they are warranted by the dual threat of military defeat and political/ideological subjugation by an enemy. Given contemporary examples of genocidal conduct in conflicts inflamed by religious, ideological, racial, and ethnic motives, there is reason to fear that some nations may plausibly contend that they are as threatened as the West was by the Soviet Bloc in the Cold war, perhaps more threatened. Modern just war doctrine, revived in response to the phenomenon of total war and the nuclear age, is challenged to continue to search for ways to reconcile the necessities of survival of free societies and the limitations of just war doctrine.

## APPLICATION OF THE INTERNATIONAL LAW OF WAR AND JUST WAR DOCTRINE

Application of international war-decision law is almost entirely in the hands of civilian officials. Legal advisors can counsel these officials on the content of the law, but decisions with respect to recourse to armed force are political decisions.

Civilian decision makers and their legal advisors should be aware that each decision about recourse to force joins the body of state practice, good or bad, that produces international law. Statesmen contemplating recourse to armed force should recognize that they may be creating, adding to, or subtracting from the precedents of conventional and customary international law, and that they may have to live with their own precedents.

With respect to international war-conduct law, the 1907 Hague Convention IV and the 1949 Geneva Conventions require the contracting parties to instruct their armed forces to conduct themselves in consonance with these Conventions. There is a long tradition in the United States, beginning with the 1863 Lieber Code, to employ documents such as *The Law of Land Warfare* as guides to the training and conduct of the US armed forces. In addition, the US armed forces produce training materials for all ranks and employ them in training on the law of war. Study of the law of war has increased quantitatively and qualitatively in the advanced schools of the American

military. Similar developments can be found in such countries as Canada, Britain, and Germany.

The key to effective training in the law of war is to relate it realistically to military operations. Such training should be integral to, not separate from, overall military training. In military operations responsibility for ensuring observance of the law of war falls to commanders at all levels. The principle of command responsibility requires that the commander be responsible for all actions of which he had knowledge or should have had knowledge. This is the standard of military professionalism. The only hope for consistent observance of the law of war lies in military professionalism, discipline, and command responsibility at all levels of the armed forces. The foundations for lawful conduct in war begin with training and must be maintained throughout military operations.<sup>20,37,61</sup>

Central to the task of enforcing the law of war in military operations are Rules of Engagement (ROEs). ROEs guide all aspects of military operations, including matters affected by the law of war. Responsible commanders issue ROEs and are obliged to take all necessary measures to see that they are obeyed. Vigilant oversight throughout the chain of command is required to ensure compliance with ROEs.<sup>20(p309),37(p233)</sup>

## CONCLUSION

Just war doctrine supplements the international law of war and is increasingly consulted and invoked by military high commands and their civilian superiors. Study of just war has noticeably increased in the US military, for instance at the Army War College, the Naval War College, the Air University, and the service academies at West Point, Annapolis, and Colorado Springs. The public debates over the morality of nuclear deterrence/defense have often involved arguments based on just war doctrine. In particular, the comprehensive character of just war doctrine with its interlinked war-decision and war-conduct prescriptions has proved helpful in confronting the complex dilemmas of the nuclear age.

In free societies, the public and responsible politicians demand that decisions about recourse to war and the conduct of war be morally justified. There are many moral approaches to war. Just war doctrine has the advantage of acknowledging the fact and sometimes the necessity of war while laying down requirements for initiating and waging war.

It offers moral guidance about war that can be useful at many levels, from high political and military decision makers, to military commanders and service men and women, to responsible citizens.

Moreover, this guidance has a common sense quality. The just war requirements for recourse to armed force raise questions that any responsible decision maker should be contemplating: What is the just cause? Where is comparative justice? How will the war be conducted? Will harm done by the war be proportionate to the good achieved? What is the probability of success? Have peaceful alternatives been reasonably exhausted? Are the intentions good or are they too motivated by passions? These are all questions confronted by decision makers in contemporary crises in the Persian Gulf, in Bosnia, in Somalia, in Haiti, in Cuba, and in Kosovo. Multiple crises continue to raise these kinds of questions in many parts of the world.

The international law of war and just war doctrine must be applied by responsible human beings. Those who make the great decisions regarding re-

course to war and its conduct clearly are responsible for applying the international law of war and for bringing moral perspectives, such as those of just war doctrine, to their decisions. Down the civilian and military chains of command, each per-

son should be familiar with the law of war and have thought through the moral requirements of just war doctrine so that he can contribute as much as possible to the pursuit of policies that reflect the highest values of their country.

#### REFERENCES

1. Sherman WT. *Memoirs of General William T. Sherman*. New York: Da Capo Press; 1984.
2. Hershey AS. *The Essentials of International Public Law and Organization*. New York: Macmillan; 1927: 43–44.
3. Phillipson C. *The International Law of Ancient Greece and Rome*. Vol 2. London: Longmans, Green; 1948.
4. Bainton RH. *Christian Attitudes Toward War and Peace*. New York: Abingdon; 1960.
5. Poulet DC. *A History of the Catholic Church*. Vol 1. Raemers SA, trans & ed. St. Louis/London: B Herder; 1934: 115–116.
6. Ramsey P. *War and the Christian Conscience*. Durham, NC: Duke University Press; 1961: 15–33.
7. Khadduri M. *The Laws of War and Peace in Islam*. Baltimore, Md: Johns Hopkins Press; 1955.
8. Johnson JT, Kelsay J, eds. *Cross, Crescent and Sword*. New York: Greenwood; 1990.
9. Kelsay J, Johnson JT. *Just War and Jihad*. New York: Greenwood; 1991.
10. Friedmann W. *The Changing Structure of International Law*. New York: Columbia University Press; 1964: 306–313.
11. Singh N. *Nuclear Weapons and International Law*. New York: Praeger; 1959.
12. Johnson JT. *Ideology, Reason and Limitation of War*. Princeton, NJ: Princeton University Press; 1975.
13. Aquinas T. Summa theologica, secunda secundae, qu.40. In: D'Entreves AP, ed. *Aquinas: Selected Political Writings*. Oxford: Blackwell; 1948: 159–161.
14. Cited in: Vanderpol A. *La Doctrine Scholastique de Droit de Guerre*. Paris: Pedone; 1919.
15. Brierly JL. *Law of Nations*. 6th ed. Waldock H, ed. Oxford: Clarendon Press; 1963.
16. Bishop WW Jr. *International Law, Cases and Materials*. 3rd ed. Boston: Little Brown; 1962.
17. O'Brien WV. *Law and Morality in Israel's War With the PLO*. New York: Routledge; 1991.
18. Claude IL Jr. *Swords Into Plow Shares*. 4th ed. New York: Random House; 1984: 150, 157–158, 268–269.
19. Arend AC, Beck RJ. *International Law and the Use of Force*. New York: Routledge; 1993.
20. O'Brien WV. *The Conduct of Just and Limited War*. New York: Praeger; 1981.
21. Ramsey P. *The Just War: Force and Political Responsibility*. New York: Charles Scribner's Sons; 1968.
22. Johnson JT. *Just War Tradition and the Restraint of War: A Moral and Historical Inquiry*. Princeton, NJ: Princeton University Press; 1981.
23. Johnson JT. *Can Modern War Be Just?* New Haven, Conn: Yale University Press; 1984.

24. Walzer M. *Just and Unjust Wars: A Moral Argument With Historical Illustrations*. New York: Basic Books; 1977.
25. Murray JC. *We Hold These Truths: Catholic Reflections on the American Proposition*. New York: Sheed & Ward; 1960: 249–273.
26. National Conference of Catholic Bishops. *The Challenge of Peace*. Washington, DC: US Catholic Conference; 3 May 1983.
27. US Department of the Air Force. *International Law—The Conduct of Armed Conflict and Air Operations*. Washington, DC: Department of the Air Force; 19 November 1976. Air Force Pamphlet 110-31.
28. Hyde CC. *International Law, Chiefly as Interpreted and Applied by the United States*. 2nd rev ed, Vol 3. Boston: Little, Brown; 1947.
29. O'Brien WV. 'Military necessity' in international law. *World Polity: A Yearbook of Studies in International Law and Organization*. Vol 1. Utrecht: Spectrum / The Institute of World Polity; Washington, DC: Georgetown University; 1957: 119–128.
30. O'Brien WV. The PLO in international law. *Boston Univ Int Law J*. 1984;3:349–413.
31. Geneva Protocol Additional to the Geneva Conventions of 12 August 1949 and Relating to the Protection of Victims of International Armed Conflicts (Protocol I), 12 December 1977. UN Doc. A/32/144. *Int Leg Materials*. 1977;16:1442–1449.
32. Geneva Protocol Additional to the Geneva Conventions of 12 August 1949 and Relating to the Protection of the Victims of Non-International Armed Conflicts (Protocol II), 12 December 1977. UN Doc. A/32/144. *Int Leg Materials*. 1977;16:1442–1449.
33. The Declaration of St. Petersburg, 29 November 1868. *Am J Int Law*. 1907;Suppl 1:95–96.
34. Hague Convention IV Respecting the Laws and Customs of War on Land, 18 October 1907, 36 Stat. 2277; Treaty Series no. 539; Malloy Treaties, Vol. II.
35. Hague Convention (IV,3) Concerning Expanding Bullets, 29 July 1899. *Am J Int Law*. 1907;Suppl 1:155.
36. Department of the Army. *The Law of Land Warfare*. Washington, DC: DA; July 1956. Field Manual 27-10.
37. Lewy G. *America in Vietnam*. New York: Oxford University Press; 1978.
38. Geneva Convention on Prohibition or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects, October, 1980. UN Doc. A/CONF/95/15. *Int Leg Materials*. 1980;19:1523.
39. Protocol to Non-Detectable Fragments (Protocol I); Protocol on Prohibition or Restrictions on the Use of Mines, Booby Traps and Other Devices (Protocol II), annexed to the 1980 Weapons Convention.
40. Smart JK. History of chemical and biological warfare: An American perspective. In: Sidell FR, Takafuji ET, Franz DR, eds. *Medical Aspects of Chemical and Biological Warfare*. In: *Textbook of Military Medicine*. Washington, DC: Office of The Surgeon General and Borden Institute; 1997: 9–86.
41. Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous, or Other Gases, and of Bacteriological Methods of Warfare, 17 June 1925. 26 UST 571; TIAS 8061; 94 LNTS 65. US ratification, 10 April 1975.
42. Geneva Convention on the Prohibition of the Development, Production, and Stockpiling of Bacteriological (Biological) and Toxin Weapons and Their Destruction, 10 April 1972. 26 UST 57, TIAS 8062.



43. Paris Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction, 13 January 1993. *Int Leg Materials*. 1993;31:800.
44. Krepon M. Chemical weapons ban, imperfect, essential. *Washington Post*. 24 July 1994; C7.
45. Gordon MR, Trainor BE. *The Generals' War: The Inside Story of the Conflict in the Gulf*. Boston: Little, Brown; 1995: 47, 128, 362–368.
46. United States Arms Control and Disarmament Agency. *Arms Control and Disarmament Agreements*. Washington, DC: US Arms Control and Disarmament Agency; 1990.
47. Levie HS. Prisoners of war in international armed conflict. *International Law Studies*. Vol 59. Newport, RI: US Naval War College; 1978.
48. Levie HS. Documents on prisoners of war. *International Law Studies*. Vol 60. Newport, RI: US Naval War College; 1979.
49. Geneva Convention Relative to the Treatment of Prisoners of War, 12 August 1949. 6 UST 316; TIAS 33641; 75 UNTS 135 (1956).
50. Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field, 12 August 1949. 6 UST 314; TIAS 3362; 75 UNTS 31 (1956)
51. Geneva Convention for the Amelioration of the Condition of Wounded and Sick and Shipwrecked Members of the Armed Forces at Sea, 12 August 1949. 6 UST 3217; TIAS 3363; 75 UNTS 85 (1956).
52. 1907 Hague Convention No. IV Respecting the Laws and Customs of War on Land. Annex to the Convention. Regulations Respecting the Laws and Customs of War on Land. Section III. Military Authority over the Territory of the Hostile State, Articles 42–56. 18 October 1907. 36 Stat. 2277; Treaty Series No. 539; Malloy Treaties, Vol. II, p. 2269.
53. Geneva Convention Relative to the Protection of Civilian Persons in Time of War, 12 August 1949. 6 UST 3316; TIAS 3364; 75 UNTS 135 (1956).
54. Feilchenfeld EH. *The International Economic Law of Belligerent Occupation*. Washington, DC: Carnegie Endowment of International Peace; 1942.
55. McDougal MS, Feliciano FP. *Law and Minimum World Public Order*. New Haven, Conn: Yale University Press; 1961: 732–832.
56. McCormick RA. Morality of war. *New Catholic Encyclopedia*. Vol 14. New York: McGraw-Hill; 1967.
57. Snow DM. *Nuclear Deterrence in a Dynamic World*. Tuscaloosa: University of Alabama Press; 1981: 69–85.
58. Friedberg AL. A history of US strategic doctrine 1945 to 1980. *J Strategic Stud*. 1980;3:37–71.
59. Smoke R. *National Security and the Nuclear Dilemma*. Reading, Mass: Addison-Wesley; 1984: 175–250.
60. O'Brien WV. The failure of deterrence and the conduct of war. In: O'Brien W, Langan J, eds. *The Nuclear Dilemma and the Just War*. Lexington, Mass: Lexington Books; 1986: 153–197.
61. Parks WH. Command responsibility for war crimes. *Mil Law Rev*. 1973;62:1–104.



# Chapter 9

## THE SOLDIER AND AUTONOMY

SANDRA L. VISSER, PhD\*

---

### INTRODUCTION

### PRINCIPLES OF AUTONOMY

- The Harm Principle
- The Legal-Moral Principle
- The Principle of Paternalism

### THE HARM PRINCIPLE AND THE MILITARY MISSION

### INDIVIDUAL LIBERTY VS THE NEEDS OF THE ARMY

- Conscientious Objection
- Following Orders

### CONCLUSION

*\* Associate Professor of Philosophy, Department of Philosophy, Valparaiso University, Valparaiso, Indiana 46383; formerly, Assistant Professor of Philosophy, Department of English, United States Military Academy, West Point, New York*



SFC Peter G. Varisano

*On Guard at Sunset*

Saudi Arabia, 1991

Sergeant Varisano was part of an art team called upon to document Operation Desert Shield in the Persian Gulf War. This watercolor, depicting the loneliness and responsibility of guard duty, also depicts all soldiers who, by virtue of being soldiers, set aside their individual autonomy for this period to be part of the team and the mission. Image available at: <http://www.army.mil/cmh-pg/art/display2.htm>.

Art: Courtesy of Army Art Collection, US Army Center of Military History, Washington, DC.



## INTRODUCTION

Frank wakes up and puts on the clothes he's been told to wear. He eats breakfast and leaves his designated house. He was assigned to live in a neighborhood where others of his station in life live. All the houses are nearly identical with nicely kept lawns. His "area coordinator" tells him he must keep his yard tidy, which he does lest the area coordinator complain to Frank's boss. Frank drives to work, carefully observing the speed limit because the police will tell his boss if he frequently gets caught speeding. He wishes he could wear whatever clothes he wants, drive his car how he wants without getting fired, and live where he wants. Frank also doesn't like the leader of his country very much, but he cannot demonstrate or go to political rallies in his work clothes. Frank can vote for someone else, but he cannot make public statements about his disagreements with his country's current leader. If he makes such statements too publicly, he will get in trouble with his boss. Frank believes so much in personal liberty and freedom that he has dedicated his life to ensure that everyone in his country can have many of the freedoms he lacks. Frank is in the US Army. Strangely enough, he doesn't have many of the freedoms he is willing to fight for. The Army, purportedly by necessity, is a nondemocratic, absolutist system designed to defend democracy. Does the Army legitimately

take away so many personal freedoms? If so, why?

In a country in which personal liberty is highly valued, soldiers' (in this chapter *soldier* refers to both officers and enlisted personnel) losses of personal autonomy are marked and frequently give rise to personal conflicts. This chapter will examine personal autonomy, its limits in a democratic society, and its limits in the military of a democratic society.

For the purposes of this discussion, personal autonomy will be understood as the freedom to choose among several courses of action without fear of coercion or other controlling interference. Champions of autonomy, as most Americans are, generally value its free exercise for two reasons. The first reason lies in human nature, specifically human rationality. Humans have the ability to make decisions about courses of action based on their goals and desires and their anticipation of the results of various potential courses of action. This is an ability few other animals have and it should be highly valued. Thus, humans ought to be able to use it. John Stuart Mill most clearly articulated the second reason for valuing autonomy. Exercise of autonomy of action and speech is beneficial for society—it promotes creativity, individuality, and individual growth, which have long-term beneficial effects for society as a whole.

## PRINCIPLES OF AUTONOMY

Though free exercise of personal autonomy (or liberty) is a central value in democratic nations, it must sometimes be restricted. Restrictions tend to be justified based on one of three principles: (1) the harm principle, (2) the legal-moral principle, and (3) the principle of paternalism.

### The Harm Principle

The harm principle, espoused by John Stuart Mill, is the least restrictive of the three. It says that one's personal autonomy should only be limited in order to prevent harm to others. In Mill's words:

[T]he sole end for which mankind are warranted, individually or collectively, in interfering with the liberty of action of any of their number, is self-protection.... [T]he only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others.<sup>1</sup>

Mill goes on to assert that in the case of injury to others, society has an obligation to prevent, stop, and punish harm to others. An action is harmful to another if it affects him in such a way as to restrict his freedom without his free, informed, undeceived consent. Examples of such restrictions of freedom include physical harm to others, breaking of contracts, and stealing property.

Two more specific examples of how the harm principle works might be helpful here. The United States Military Academy (USMA) requires its male plebes (freshmen) to take boxing. Frequently, boxers hurt their opponents. Such physical harm, though it does restrict the freedom of the injured party, does not take place without his free, undeceived consent. Before cadets get to the Academy, they know that they must take boxing. Because they are free to leave without penalty in their first year, they implicitly consent to take boxing, and risk whatever physical injury may result. Thus, though

boxers frequently hurt each other, such activities need not be stopped according to the harm principle.

One of the many unique practices at USMA will serve as a second example of how the harm principle works in a specific context. Because there is an expectation that cadets are honest, borrowing is a common practice at the Academy. Historically, cadets have been allowed to borrow items from another cadet without the latter's knowledge. Most of the time, cadets remembered to return the items in a timely fashion, so such borrowing was unregulated. However, over the years, it became clear that not all borrowing, even true instances of it, proved harmless to the one being borrowed from. Frequently a cadet would borrow a book or cassette tape fully intending to return it. Being human, the borrower would occasionally forget to return the item. The person from whom the item was borrowed could not find it when he wanted or needed it. Thus, in order to prevent the harm that was occurring, Academy officials instituted a policy requiring borrowers to leave a note indicating which items they borrowed and when they took them. Though instituting such a policy restricts the freedom of the borrower in some way, the restriction is justified because of the harm done to someone whose items are unavailable to him when he needs or wishes to use them.

A similar issue arises in the civilian world. In many small towns teenagers enjoy skateboarding and rollerblading down handrails. They wax them so that they can go faster. Being young and able-bodied, they frequently fail to realize that waxing the rails makes them unhelpful for people who need them for support. Thus, in order to prevent damage to public property and prevent the harm caused to those who cannot use the waxy, damaged rails, towns prohibit waxing and skateboarding or rollerblading on public handrails.

The harm principle entails that actions that cause harm might depend on one's freely chosen profession or occupation. The duties one incurs as a result of becoming a soldier might limit one's freedom in certain respects, but it might broaden it in others. The typical citizen should not lie in wait in order to kill another human, though a soldier might be required to do so during a time of war. An accountant might be able to do his job well despite being grossly overweight, but an infantryman cannot. Thus, an accountant is free to be fat, because he alone suffers any ill effects, but an infantryman violates another's liberty by being grossly overweight. He harms those who legiti-

mately depend on him to perform his job well. This principle allows people to practice even those activities that others deem immoral, as long as they do not harm others. It is the least restrictive of the three.

### **The Legal-Moral Principle**

A more restrictive principle is the principle of legal moralism. According to this principle, one is justified in limiting another's freedom if that person is performing or is planning to perform an immoral action. Assume that illicit drug use is immoral. If it is, it is the reason that justifies governments making all drug use of certain types illegal. For example, under the harm principle cocaine use would be permissible as long as the user did not violate any of his obligations as a result. He could be punished only if he turned to a life of crime, drove while under the influence of cocaine, beat his children, or brought about some harm to others as a result. Then, he would only be punished for the harmful actions he committed as a result, not for using the drug. However, under the more restrictive principle of legal moralism, he could be punished or prevented from using cocaine in the first place, because cocaine use, in itself, is immoral.

The problem with this principle, and one reason many people reject it, is its close relationship with morality. People's views of morality are notoriously diverse—some believe that working on Sunday is immoral, others think that working on Saturday is immoral, still others believe that which days one works has nothing to do with morality. Though there is some objective standard of morality, people are generally loath to give the government, even one democratically run, the say in deciding where the moral boundaries lie.

### **The Principle of Paternalism**

The final principle is the principle of paternalism. It comes in various forms, but essentially states that one may restrict the freedom of another if it is for his own good and is in his long-term best interests. Mill strongly opposes a paternalistic principle.

His own good, either physical or moral, is not a sufficient warrant. He cannot rightfully be compelled to do or forbear because it will be better for him to do so, because it will make him happier, because in the opinion of others, to do so would be

wise, or even right. These are good reasons for re-monstrating with him, or reasoning with him, or persuading him, or entreating him, but not for compelling him, or visiting him with any evil in case he do otherwise. To justify that, the conduct from which it is desired to deter him must be calculated to produce evil to someone else. The only part of the conduct of anyone, for which he is amenable to society, is that which concerns others. In the part which merely concerns himself, his independence is of right, absolute.<sup>1</sup>

Paternalistic interference into someone's life, even when the interference comes with the best intentions, should never occur, according to Mill. People are better off if they can exercise their freedom and learn from both their successes and failures as long as they only harm themselves with their actions.

The military, and especially the United States Military Academy (USMA), engages in many practices that appear paternalistic. Sometimes rules that the military enforces look like they are merely for the good of the soldier, but the military really has a legitimate interest in having the soldiers act in the regulated way. Other times, however, the rules are purely paternalistic, no matter how one considers it. A good example of this is a rule that is periodically enforced at USMA. Cadets, perhaps unsurprisingly, don't like to make their beds. Many cadets save time and trouble by sleeping on top of their beds and using some other blanket, which isn't hard to make neat as a top cover. While such behavior might seem silly, it isn't really harmful. Cadets who sleep on top of their blankets aren't any less healthy than those who sleep between the sheets. The rules are a clear product of paternalism: The Academy does not have anything to gain by having the cadets sleep between their sheets; the cadets should just do it because they will see that in the long run they like it better.

Mill rejects such rules on the grounds that a person's right to determine his own ends, even if they appear to be harmful to himself, superseded someone else's obligation to help him out. Mill's creed is: help only those that desire help; help no one against his will. Mill's beliefs echo the ideological slant of most Americans in that regard; having someone else determine what is best for oneself grates against most American sensibilities.

In summary, personal autonomy is something Americans hold dear, with good reason. However, personal liberty cannot be completely unrestricted, because many of the actions people perform affect

those around them. Thus, every society and every organized group within that society must restrict its members' freedom to a certain extent. Of the many principled ways of restricting one's freedom, this chapter has focused on three: the harm principle, the legal-moral principle, and the principle of paternalism. Each of the three rests on a different assumption about the place of personal liberty among other important values. The harm principle holds personal liberty as its highest value, and would restrict personal freedom only when it interferes with another person's ability to legitimately exercise his own freedom. The legal-moral principle subordinates personal liberty to morality. In practice, the specific moral rules that restrict autonomy take the form of laws that the society recognizes. Finally, the principle of paternalism subordinates an individual's autonomy to what a privileged person or group of people believe to be in the best interest of that individual.

In order for an organization to act consistently, it should only use one set of principles of autonomy for each distinct goal. The principle it applies should be consistent with that organization's explicit or implicit values and that specific goal, so that its treatment of its members accurately reflects its values. The military should fulfill its mission within the ideological framework of the society that it serves. Though not an uncontroversial claim, it is not unreasonable to take the position that the principle that best reflects fundamental American values is the harm principle.

Admittedly, there are numerous laws in the United States that are somewhat paternalistic and moralistic (such as helmet laws for bikes and motorcycles), but debates usually rage around laws that are *purely* paternalistic and moralistic (such as the drinking age and the use of marijuana). Moreover, supporters of those laws usually end up claiming that such laws are in the collective interest of the society. Such arguments indicate that many Americans would find unacceptable explicit appeals to morality or paternalism as the sole principle for lawmaking.

In addition, the mere fact that open argument about which principle is best supports the claim that freedom, in both beliefs and actions, is the strongest value that America as a whole supports both Constitutionally and as a matter of popular belief. As a result, it appears that the Army ought to regulate itself in accord with the harm principle, and despite their appeal, not with the legal-moral principle or the principle of paternalism.

## THE HARM PRINCIPLE AND THE MILITARY MISSION

The question, then, is one of how to apply the harm principle to members of the military. In other words, soldiers' personal autonomy should only be limited in order to prevent harm to others, including the organization. Considering all the restrictions of autonomy soldiers actually experience, does the Army unnecessarily violate the harm principle?

It is important to remember that in the All Volunteer Force (AVF), the soldier enters the military knowing its goals and commits to accepting them as his own. While the United States currently has an All Volunteer Force, this has not always been the case and it is possible that it won't be the case in the future. For the purposes of this discussion, we will assume that society has moral justification to utilize a military draft in order to protect itself. The argument for this justification is beyond the scope of this chapter. It is this author's opinion that the limitations on autonomy should be the same for all soldiers regardless of how they entered the military.

Thus, the military can limit soldiers' autonomy consistent with the harm principle. Specifically, the Army takes steps to insure that soldiers' behavior doesn't harm others or the organization itself, so it legitimately limits soldiers' autonomy. The Army has a particular mandate to fulfill<sup>2</sup>:

- Support and defend the Constitution of the United States against all enemies, foreign and domestic.
- Ensure, by timely and effective military action, the security of the United States, its territories, and areas vital to its interest.
- Uphold and advance the national policies and interests of the United States.
- Safeguard the internal security of the United States.

The military accomplishes its purpose, in large part, with the use of volunteered human resources. As a result, it must safeguard those resources.

Beginning with the seemingly less important, but highly annoying restrictions of liberty, the military

appears to act paternalistically. It dictates that its members be healthy, have plans for childcare, have tidy lawns, wear seatbelts, wear helmets while biking and motorcycling, and so on. Are such rules justified in an organization that should (as an explicitly American organization) reject the principle of paternalism? Though the paternalism principle might seem to be the obvious justification for the rules, the same rules can be generated using the harm principle. First, one's physical condition is usually crucial to performing one's military job well; the military wishes to safeguard its members. Thus, there are rules about physical fitness, wearing seatbelts and helmets, and not being addicted to drugs or alcohol. Second, because the most important parts of soldiers' jobs entail that they carry them out away from their families, having plans for childcare is important to ensure soldiers' mental well-being when separated from their families. Fewer emotional concerns will allow them to concentrate on their jobs better than otherwise. Third, even having a tidy lawn is important, because a tidy lawn is part of "good order" and "good order" is essential to maintaining operational readiness. Because the money for housing comes exclusively from taxpayers, well-maintained housing is better than ill-kept housing, for which taxpayers (and members of Congress) might not be willing to pay.

Even though good commanders promote many of these rules among their subordinates in ways that don't explicitly appeal to the reasons outlined above (so well-kept housing is encouraged by appealing to its function as a morale booster or by subsuming it under the principle of taking good care of the equipment one is issued [which, incidentally, has been stressed much more as budgets become more and more limited]), it is the harm principle that drives the rules. So, though the military often looks like it acts paternalistically, the restrictions that actually ensure that soldiers' behavior doesn't harm the organization are justified. Those that are exclusively paternalistic are not justified, in this author's opinion.

## INDIVIDUAL LIBERTY VS THE NEEDS OF THE ARMY

In addition to the apparently less important restrictions of autonomy soldiers face in the Army, there are several fundamental issues concerning the clash between individual liberty and the needs of the military. Foremost among these are issues of conscientious objection and following orders. These

will be discussed in detail in this chapter. A third issue, that of making judgments about appropriate medical care, is an especially interesting issue because it concerns the autonomy of patients and doctors, the legitimate goals of the Army, and the clash between two sets of professional values for the mili-



tary healthcare professional. These issues are discussed elsewhere in some depth by Howe in Chapter 12, Mixed Agency, in this volume, as well as Howe and Jones,<sup>3</sup> and Beauchamp and Childress.<sup>4</sup>

### Conscientious Objection

Conscientious objection (for those who have already joined the military of their own volition) seems to involve a clash between an individual's autonomy and prior expectations of the military experience, and the reality of life in the military. Current regulations ameliorate but do not completely relieve this tension. An application of the harm principle based on an understanding of the purpose of the Army can, however, help resolve the tension.

### Current Regulations

US Army regulations accommodate a secular society by providing for the separation of those who have "a firm, fixed and sincere objection to participation in war in any form or the bearing of arms because of religious training and belief"<sup>5(Gloss)</sup> where such beliefs "may include solely moral or ethical beliefs."<sup>5(Gloss)</sup> Prior to the advent of an all-volunteer force in 1973, one filed for conscientious objector status before entering the armed forces. Current regulations allow one to apply while serving because the military realizes that a person's beliefs can change over time. Many of the people now joining the military do so at a fairly young age, before they fully form their belief systems. As they mature or gain more experiences, it is possible that they might legitimately change their basic beliefs. Thus, if a soldier has a significant change in outlook, there is a legitimate claim to conscientious objector status even though the individual originally volunteered to be in the armed forces.

Army regulations allow an objection to war in general (hereafter referred to as *moral pacifism*) but not to a particular war (hereafter referred to as *situational pacifism*). Soldiers are not allowed to leave the Army because they have decided for pragmatic or political reasons that the appropriate response to a particular situation is nonviolence rather than violence. The following discussion explores the rationale for this policy.

### Moral Considerations of Conscientious Objection/Pacifism

The relevant moral considerations pertaining to pacifists break into two categories: concerns with

moral pacifists and concerns with situational pacifists. One of the foundations of the United States is the freedom to act in accordance with a wide range of convictions, and in most cases, Americans are allowed to act as they see fit as long as their behavior does not harm or interfere with the rights of another. It follows that moral pacifists should be allowed to resign from the Army, and regulations allow for that.

The status of a situational pacifist is parallel but significantly different. A common reason to think about leaving the US armed forces or to desire to forego fighting in a particular war is because one believes that for certain moral reasons, one ought not be fighting in it. If a particular war is morally unjustified, the killing that the soldier did would be morally wrong (on a moral par with murder). Of course, even though the killing would be morally wrong, it would not be illegal. As a general rule, soldiers cannot be held accountable for knowing whether a particular war is morally acceptable because most members of the military have much less information than necessary to make an educated decision. Thus, one fighting in an immoral war might not be blameworthy for the bad actions taken in the war (barring war crimes). Culpability aside, if one *believed* that the war on which one were to embark was immoral, then one would *believe* that he was going to unjustifiably kill people. Is it fair to force someone to do something he believes is willful and unjustified killing? Do we have a strong *prima facie* reason to allow situational pacifists out of the Army, even though the regulations say they must stay in?

The topic is more complex than it first appears because the Army has a twofold obligation that comes into conflict with an individual soldier's desires to make autonomous decisions. First, it must protect the interests and persons of the citizens of the United States. This obligation is obvious—without people to protect, there is no need for an army in the first place. Second, the military must ensure the well-being of its soldiers and officers. Each of these obligations is moral, not merely legal. Thus, the armed forces have an obligation to be as effective as possible. The more effective they are, the more able they are to fulfill their first obligation. The Army is most effective when cohesive units comprise it. The well-being of each member of a unit is also enhanced when he is a member of a cohesive unit. Thus, cohesion is necessary in order to satisfy both the first and second obligations of the Army. (See Chapter 6, Honor, Combat Ethics, and Military Culture for a further discussion of cohe-

sion.) However, cohesion is damaged when members of a unit decide either before or during a particular conflict that they will not participate. Such a possibility weakens the perceived trust and dedication the unit's members have for each other. The Army cannot allow harm to come to the unit as a whole or its soldiers as members of that group. As a result, the Army has a moral interest in denying situational pacifists conscientious objector status. This interest is indeed moral, even though we have explained it by showing practical results of allowing situational pacifists to leave the Army.

A unit's effectiveness also depends on having well-trained people for each role that it has. Everyone in a unit has a distinct job, and the skills required for each job must be practiced. Many of the jobs are not easily interchangeable. As a result, soldiers are not simply cogs in a machine. Each has a particular function. To allow people to leave the military prior to a war means that the Army must suddenly and unexpectedly allow key positions to go unfilled, which in turn has a negative impact on unit effectiveness. Furthermore, the Army must be able to depend on soldiers to be combat ready. If, as an institution, the military provided soldiers a means to "opt out" of the most rigorous and dangerous duties, the military could not depend on any units to be deployable. Indeed, as has been shown with combat stress reaction, as discussed by Jones<sup>6-8</sup> (as well as discussed in Chapter 12, *Mixed Agency*, in this volume), inappropriate evacuation for minimal dysfunction can open the floodgates to extensive personnel losses. Similarly, allowing individuals to claim situational pacifism might open a comparable floodgate. Thus, given the Army's two-fold moral obligation, it has a *prima facie* obligation to deny situational pacifists (and by this argument moral pacifists as well) the freedom to leave the military.

A unit's effectiveness is also dependent on the morale of its members. It is possible that a retained situational pacifist will have negative effects on morale by grouching, or convincing other soldiers that their cause in a particular instance is not just. It might also introduce divisions into a unit by placing those who support the government's aims and those who do not in close proximity to each other. For this reason, the Army has a *prima facie* obligation to allow situational pacifists to leave. Thus, we have conflicting *prima facie* moral obligations—an obligation to deny situational pacifists the freedom to leave vs an obligation to allow them the freedom to leave. Two more relevant factors facilitate a resolution to this conflict.

First, members of the military have an obligation to the state, and when they attempt to leave they are violating that obligation. When joining the military, a soldier, in effect, enters into a contract with the state. Members of the state have agreed to pay, feed, house, and provide for the medical needs of soldiers. In some cases, they agree to educate them and provide them with pensions. The government notifies the soldier (by declaring war or dispatching the soldier on an operation other than war) when the need for services in that capacity arise. Thus, when a soldier says, "I have decided that I ought not engage in this particular activity," the soldier is also implicitly saying, "I know that I told you I would protect your interests in exchange for a salary, food, housing, medical care, and training, and you have upheld your end of the bargain, but I made a mistake. I cannot perform my job in good conscience. You must let me out of the contract (at no cost to myself)."

Other things being equal, such a breach of contract is immoral and is likely to cause harm to the Army. The soldier voluntarily entered into the contract, thereby limiting his autonomy in certain respects. Suppose that the situational pacifist offers to pay the government back for the money it has invested in him, or that he offers to fulfill his time in a nonmilitary capacity. Would it then be acceptable to allow situational pacifists out of the Army? No, because that is not the deal the military made. Part of the reason is that once the person is trained in a particular Army unit, the Army risks too much of a loss to allow such an opting out. Thus, to leave the military as a result of situational pacifism is an unjustified breach of contract and therefore is justifiably prevented using the harm principle.

Second, members of the military have given up their rights to decide which wars should be fought and which should not. It is one of the explicit conditions of joining the military. Soldiers and officers have given up that much of their political freedom. Thus, by entering the military they have decided (or should have decided) that they trust the state's ability to engage only in morally justified wars. If they do not trust the state to make those decisions, then they should not enter the military. Thus, before they enter the military, citizens have an obligation to consider the possibility that they will disagree with the state's decisions. If they decide to enter the military, they should come to terms with the fact that they might have to fight in what they believe to be unjust wars. Those who mistrust the judgment of the United States government when it comes to waging war should not enter the military

in the first place; they have knowingly restricted their autonomy by joining the Army.

In sum, the conflicting rights and duties of the military and the soldier are as follows: A soldier has a right (and generally an obligation) to refrain from what he believes to be immoral actions (such as engaging in an immoral war). A soldier has a moral obligation to uphold contracts into which he has freely entered. The military has an obligation to effectively protect Americans and an obligation to ensure the well-being of its soldiers. The military has an obligation to enforce its contract with soldiers into which it entered on the behalf of American citizens.

One can now see, at least in part, why the Army does not allow situational pacifism. The Army is taking steps to insure that it can perform its moral obligations. By denying situational pacifists conscientious objector status, the Army is taking steps to fulfill its obligations to prevent harm to the citizens of the United States and the soldiers that comprise the Army.

However, one still might question whether it is the best *moral* position. It seems that the Army's position ignores individuals' rights to act on their deepest, most sincere convictions. In effect, by denying conscientious objector status to situational pacifists, the Army is telling people that they must kill other innocent people, even when they believe that the killing is murderous. And this seems to be a very difficult position to take, especially because the Army discharges moral pacifists.

All the arguments that support the position that situational pacifists should stay in the Army—unit cohesiveness, unit competence, contractual obligation to the state—support the position that moral pacifists should stay in the Army as well. And if moral pacifists should be allowed to leave because their rights to act on rational, nonharmful, deep-seated convictions ought not be violated in the United States, then it appears that situational pacifists should be released on those grounds as well. Is the difference in treatment justified? Yes.

The two situations are relevantly different on one point. Moral pacifists have decided that all violence is wrong, regardless of circumstances. Situational pacifists have decided that they would like to retain their right to decide when to fight and when not to fight; they have not decided that all violence is wrong. They have decided that one particular war is immoral. They make this judgment based on the limited information that they have at their disposal. In many cases, relevant information is justifiably kept from them for security reasons. Sometimes the information is kept from them for unjustified rea-

sons, as well. For whatever reason, in many cases soldiers do not know whether their leaders are acting morally or immorally. Sometimes the soldiers might be right, and sometimes they might be wrong. But the judgment about the morality of particular wars is always difficult, even after the fact when all the information is public. During a war, when governments restrict access to much of the relevant information, the judgment is even more difficult to make reliably. (This lack of accessible information is precisely what justifies holding soldiers accountable only for the particular and extraordinary crimes that they commit in war and not for the "ordinary" killing they do.) Thus, their retention in the Army appears to be justified.

There is still the problem that some people who genuinely believe that a particular engagement is immoral might nonetheless be forced to commit what they see as murder. In order to account for that significant problem, there appears to be only one moral solution: retain the soldier but reassign him to a noncombatant position (1-A-O). In this way, the situational pacifist would not be forced to commit what he believes is murder. The argument that he will still be helping the war effort in some way is not particularly persuasive. Every taxpayer supports war efforts. Every citizen of a country supports the war either directly or indirectly. Thus, reclassification as 1-A-O, rather than discharge as 1-O (pacifist), is reasonable in light of his voluntary entrance into the armed services.

Though this might be the best moral solution, it is one that no one can pragmatically endorse because it depends on an unrealistic assumption—namely that the Army can reliably identify authentic situational pacifists. Humans are not omniscient. Thus it would be extremely difficult in most cases to tell when someone was a genuine situational pacifist. As a result, the responsible administration of such a policy would be nearly impossible. It is very difficult to verify that someone is a moral pacifist rather than a coward. It is even more difficult to verify legitimate instances of situational pacifism when the person involved faces the immediate and dangerous prospect of going to war. Because the ideal solution rests on the military's ability to distinguish between those who genuinely oppose the war on moral grounds and those who oppose the war because of cowardice or a preference not to be exposed to danger, it would be impractical to attempt to implement it.

In addition, implementing this ideal moral solution would probably compromise the Army's ability to carry out the job it was created to do. It is



possible that a great number of soldiers would decide that a particular war was immoral. As a result, the Army would lose key personnel from the jobs for which they were trained, which would adversely affect unit effectiveness, and thus combat readiness. Unit cohesion would also be damaged, once again having a detrimental effect on unit effectiveness. By granting situational pacifists conscientious objector status, the Army would make its job of efficiently and effectively defending American interests nearly impossible.

Someone who opposes a particular engagement nonetheless still has the means to morally avoid the conflict. If one were truly to believe that what one would be engaging in was murder, one could refuse to fight and be sent to jail. It is hardly an appealing option, but to spend the duration of a war in jail is much better (from a moral standpoint) than going to war and killing people. Someone might argue that it is possible to go to war and just not kill anyone. That is, one could aim high with one's weapon. This is not a morally acceptable option. Failure to use any weapon accurately could put many of one's fellow soldiers at risk. If one told them, it would have a negative effect on unit cohesion. If one did not tell them, it would be unjustifiably putting them at risk because they had no reason to believe that a fellow soldier would intentionally fail to perform the role of the combatant. Furthermore, many jobs in the US Army require one to use area weapons (for example, the field artillery), where one cannot see the target. Therefore, one cannot ensure that one will avoid killing others by simply aiming poorly. In fact there might be fratricide (friendly casualties), civilian casualties, or even more enemy dead, because the misdirected fire could land anywhere. Thus, failing to perform one's duties as a method of expressing conscientious objection is not viable because it puts others at risk.

The difficult solution to the problem of conscientious objection relies primarily on soldiers' voluntary entrance into the US Army. They knowingly restrict their autonomy and need to consider the weighty effects their decision has before they commit. The Army needs to do its part in making sure soldiers understand their full commitment before they join.

### **Case Studies**

Before concluding this discussion of conscientious objection, it might be instructive to consider two recent cases in which Army doctors applied for conscientious objector (CO) status.

**Case Study 9-1: Captain Huet-Vaughn and Situational Pacifism.** Captain Yolanda Huet-Vaughn was a physician in the US Army Reserve and was assigned to the 325th General Hospital in Independence, Missouri. She was ordered to active duty at Fort Leonard Wood, Missouri, in the fall of 1990 as part of a nationwide activation of reservists in response to the Iraqi invasion of Kuwait in early August. On 19 December 1990, she was reassigned to the 410th Evacuation Hospital that had mobilized at Fort Riley, Kansas, pending its deployment to Southwest Asia in support of Operation Desert Shield, the preparation phase of the Persian Gulf War. She deserted her unit on 31 December 1990 before it deployed. She voluntarily returned to duty on 2 February 1991 (when Operation Desert Storm, the combat phase of the Persian Gulf War, concluded) and applied for conscientious objector status. She underwent general court martial for desertion and because she was found to be guilty, her application for conscientious objector status was never reviewed.<sup>9</sup>

**Comment:** Captain Huet-Vaughn filed for conscientious objector status on the grounds that she believed that particular war crimes were going to be committed during the combat that she anticipated in the Persian Gulf. In her case, it was evident that she had no moral or legal grounds for claiming conscientious objector status because her argument was not against violence in general, but with the looming Persian Gulf War in particular. Nor did she believe that she personally was going to be forced to engage in any crimes. Had her application for conscientious objector status been reviewed, Captain Huet-Vaughn would likely have been denied conscientious objector status both legally and morally as her pacifism was situational.

**Case Study 9-2: Captain Wiggins and Political Pacifism.** Captain David Wiggins, on active duty stationed at Fort Hood, Texas, filed for conscientious objector status on 27 February 1990. His education at the US Military Academy at West Point and subsequent medical degree had both been paid for by the federal government. Following the disintegration of communism in Eastern Europe in 1989, Captain Wiggins became convinced that nonviolence could be an effective way to bring about change. Though his pacifism was secular, the Army neither denied his conscientious objector status on those grounds nor questioned his sincerity even though no one appeared to know of his pacifism prior to his filing for conscientious objector status. The board denied him conscientious objector status on the grounds that his beliefs were motivated by the current political situation and thus did not qualify as "deeply held moral, ethical or religious" beliefs as Army Regulation 600-43, Conscientious Objection (as interpreted after the Seeger ruling<sup>10</sup> in 1965 that defined "religious training and belief") requires. The Conscientious Objector Review Board said that Wiggins' beliefs were philosophical and political rather than moral or ethical.<sup>11</sup>

**Comment:** Captain Wiggins did not legally qualify for conscientious objector status. Should he have? The an-



swer to the question is a bit tricky; it depends on the regulations and court cases governing conscientious objector status. According to Army Regulation 600-43,<sup>5(Subchap 1-7)</sup> a person qualifies for conscientious objector status if, among other things, his position is a result of “religious training or belief.” According to Seeger, “religious training and belief” should be understood as “an individual’s belief in a relation to a Supreme Being involving duties superior to those arising from any human relation, but [not including] essentially political, sociological or philosophical views or a merely personal moral code.”<sup>10</sup> As a result of this definition, the Army says that “requests for discharge after entering military service will not be favorably considered when: ... (3) Based solely on considerations of policy, pragmatism or expediency.... (4) Based on objection to a particular war. (5) Based upon insincerity.”<sup>5(Subchap 1-7)</sup>

The regulation specifically prohibits one from legitimately receiving conscientious objector status for situational pacifist reasons. It also prohibits one from receiving conscientious objector status based on philosophical or political reasons. This latter prohibition is somewhat problematic. The difficulty lies in the Army’s distinction between philosophical beliefs and “moral or ethical” beliefs. Many thoughtful people hold sincere moral beliefs on which they are ready to act, and which are motivated by traditionally “philosophical” reasons. Many of the great moral philosophers of the 19th and 20th centuries, for example, acted consistently with their theories. In an age of increasing secularization, it is not unusual for a person to form deeply held moral beliefs on the basis of philosophical, rather than religious, reflection. Some of the most influential “philosophical” moral theories consider the consequences of actions morally relevant (a consequentialist moral theory). Some of the relevant consequences include current political facts. As a result, to deny a person conscientious objector status because a belief came as a result of philosophical reflection based on consequentialist moral theory is unreasonable.

Captain Wiggins was denied conscientious objector status because his pacifism was deemed to be philosophically and politically motivated. Though Captain Wiggins’ argument was inadequate and did not support his position, he appeared to believe that it did. In his personal statement, Captain Wiggins said that nonviolence was the only vehicle that could bring about change. His argument, as he stated it, seems to support only situational pacifism, although he believed it to be one for moral pacifism. Captain Wiggins was arguing about the particular facts of the breakup of communism in Eastern Europe, not general claims about how humans react to things. He could have used these facts to support a general argument, but he didn’t. If he in fact sincerely believed his position supported moral pacifism and was willing to base his actions on that belief, he should have been granted conscientious objector status. Whether one is granted conscientious objector status depends on what the person believes, not whether that belief is a good or reasonable one. The military recognizes the acceptability of conscientious objection because it recognizes the legitimate

personal conflicts that arise when a person who is a part of the military comes to believe that all forms of armed conflict are immoral. Because the conflict arises because of what the person believes, not whether it is actually true that all forms of armed conflict are immoral, conscientious objector status is granted on the basis of what a person sincerely believes, not whether the person’s beliefs are justified.

The cases of Captain Huet-Vaughn and Captain Wiggins illustrate some of the difficulties that arise as a result of the conflict between personal beliefs and restricted autonomy that comes as a result of entering the military. Balancing the competing relevant features of a situation in such a way that one arrives at a morally satisfactory conclusion is extremely difficult. However, one typically encounters the tensions associated with conscientious objection when a war occurs. Fortunately, wars have been relatively infrequent. Unfortunately, conflicts between soldiers’ moral obligation to follow orders and the moral status of those orders occur even when there isn’t a war. As a result, these sorts of conflict occur more frequently.

## Following Orders

A second major concern about soldiers’ autonomy comes in obeying orders. The problem is complex, and the following discussion will only address the most significant points. Though this discussion oversimplifies things, it raises many of the crucial moral issues. In what follows I will discuss the moral status of disobeying orders. It is important to understand that the US Army *only* allows for disobeying illegal orders and does not consider the moral status of the orders a commander might issue. Thus the US Army does not make any official provisions for disobeying a legal, but immoral order.

## Which Orders Must Soldiers Follow?

In any hierarchical organization, those being told what to do will sometimes dislike what they have been told to do. In fact, sometimes they will not want to do it. Given its mission, the Army has an interest in controlling most facets of a soldier’s life. Thus, it has many occasions to tell soldiers what to do. As a result, soldiers have many opportunities to not want to do what they have been told to do. Which, of all the things a soldier is told to do yet does not want to, are the ones he needs to do? That is, which orders must a soldier follow?

The answer obviously is not, “None of them.” It

is important to be clear why that is true from a *moral* and not merely a pragmatic standpoint; by now, the reasons should be familiar. Morally, soldiers must follow orders because they said they would. They voluntarily entered the Army and accepted the benefits the Army offered in exchange. Thus, soldiers have a *prima facie* moral obligation to follow all legal orders. The Army specifically states that soldiers should not obey *illegal* orders. However, beyond war crimes, it does not specify which orders are illegal.

Moreover, the Army has an obligation to demand that soldiers quickly and efficiently follow orders, in order to fulfill its mission. In wartime, it is fairly obvious why this is so, as much of what goes on is extremely time sensitive. People need to go where they're told and do what they're told to do in a timely fashion. This is also true during training exercises. Even during peacetime, it is important that soldiers follow orders without question. In part, this is so that they become habituated to doing so. Moreover, even in peacetime, the Army needs to operate efficiently. Thus, there isn't a lot of time for disobedience and questioning. This expectation is clearly justified by the previous discussion of the harm principle. So, which orders must a soldier follow?

The answer is not, "All of them." Even though the Army needs soldiers to follow orders without hesitation and without question, and even though soldiers have agreed to follow orders in that way, there is one type of order that the Army should not expect its soldiers to obey: immoral orders. Thus, the answer to the question, "Which orders must a soldier follow?" is "All orders that are both legal and moral."

However, sometimes it is no easy task to distinguish morally acceptable from morally unacceptable orders. In ordinary life the task of discerning which actions are moral and which are immoral can be rather tricky. In a military setting the questions are even more difficult, because many of the activities that soldiers must engage in during armed conflicts are ones that would be obvious instances of immoral behavior in a civilian setting. These include intentionally killing people one doesn't even know, destroying other people's property, and rounding people up and detaining them. If a leader, these also include ordering one's soldiers to do extremely dangerous things, including ordering them to their deaths.

It is impossible to overstate the difficulty in knowing when it becomes morally permissible or necessary to perform these otherwise "immoral" actions in a military context. But, even though the

task is hard, understanding why it must happen is generally not that difficult. In fact, orders are usually unambiguously moral or unambiguously immoral. Part of the reason for this is that all illegal combat orders (ie, war crimes) are immoral orders. The United States has agreed to conventions that outlaw or restrict many forms of morally questionable behavior. Thus, knowing international law as it relates to soldiers' behavior during war is a vital part of resolving potential conflicts between following orders and behaving immorally. Army Field Manual 27-10, *The Law of Land Warfare*,<sup>12</sup> outlines the relevant international laws. Apart from knowledge of the law, some orders are obviously immoral, and a soldier should trust his ability to recognize such orders.

### *Which Orders Are Soldiers Allowed to Disobey?*

Blatantly immoral orders (eg, being ordered to kill unarmed civilians) do not really pose a problem for a soldier who wishes to live morally: He should bring their moral status to his superior's attention. If the superior fails to respond accordingly, the soldier should disobey the order, and if possible bring the situation to the attention of the chain of command. In some instances a soldier might even attempt to prevent the carrying out of such a blatantly illegal order. Instances of obvious immorality are relatively rare in a good army.

The truly problematic orders are those that are not obviously immoral. These are ones that the receiver believes are immoral, but the giver and at least some others do not. These possibly immoral orders also fall into two broad categories—those orders that are immoral because of their effects on one's own soldiers and their property, and those orders that are immoral because of their effects on the enemy (combatants, noncombatants, and protected property). Though the source of immorality is different, discussion of the dilemma remains the same.

These truly problematic cases must be contrasted with ones in which a soldier might have an understandable, but illegitimate, reason for wishing to disobey an order. For instance, soldiers might wish to disobey orders that make it likely that they will die or be severely wounded in their attempt to obey them. Though perhaps understandable, in most cases this is not an acceptable reason to disobey an order. After all, the profession of arms is not a safe one, and one engaged in it voluntarily accepts the risks that go along with it. Thus, the mere fact that one is going to die if one follows an order is not a good reason to reject it. However, if one is given an

order that would result in serious harm (death or injury) to those following it, the order might be immoral if such harm was *needless*. The obvious difficulty comes in discerning whether the harm is needless. As a general rule, soldiers will not have enough information to decide whether their orders are pointless. In most cases, those immediately above them in the chain of command will not have access to that information either. A high casualty rate might be necessary from one company in order to promote the safety of a brigade. The platoon leaders in the unfortunate company might not understand the overall situation as they receive their orders, especially if the tactical considerations do not allow their superiors to give them a complete explanation of the reason for their mission. Sometimes a commander might have access to all the information, but the situation is still morally ambiguous, as Case Study 9-3 demonstrates.

### Case Studies

**Case Study 9-3: Pickett's Mill: An Example of Moral Ambiguity.** During the Atlanta Campaign in the American Civil War, a little noted battle, Pickett's Mill, took place on 27 May 1864. The chain of command for the key Union military leaders at Pickett's Mill was:

William T. Sherman	Union Army commander
Major General of Volunteers	
Brigadier General of Regulars	
George H. Thomas	Army of the Cumberland
Major General of Volunteers	commander
Oliver O. Howard	Corps commander
Major General of Volunteers	
Thomas J. Wood	Division commander
Brigadier General of Volunteers	
William B. Hazen	Brigade commander
Brigadier General of Volunteers	

General Sherman was the commanding officer of Union forces in the engagement. One of his corps was to attack two well-entrenched Confederate divisions. Major General Howard, the Corps Commander, placed General Hazen's brigade in the front, and told him that he was to be the first wave of an attack in column, with each column attacking just minutes behind the others.

However, just before the attack Hazen overheard General Wood, his division commander, remark to General Howard that he would let Hazen's brigade go in unsupported and see what success it had. Howard consented to Wood's idea. Despite what he overheard, Hazen proceeded with the ordered attack, although a member of his staff later claimed that Hazen's face clearly showed his understanding of being lied to and betrayed by his superiors. Hazen's brigade, though it fought valiantly—in fact the Confederates believed that an entire division had attacked them—was decimated. The brigade, which

started out with 1,500 men, lost approximately 500 men in 45 minutes. Hazen later argued that Howard's orders were immoral. He blamed Howard, not Wood, because Howard was the ranking officer and consented to Wood's plan. In a postwar memoir, Hazen wrote that he would have protested the order had Howard not told him that he believed Hazen's force had the greatest chance of succeeding. He remained bitter about the incident for the rest of his life.

**Comment:** It is not clear whether Hazen should have disobeyed his orders once he understood what was really going to happen. Thus, the battle at Pickett's Mill is difficult because it is not altogether clear that Hazen's commanders believed their orders were immoral, nor is it likely that Howard would have altered his orders in the face of Hazen's complaint.<sup>13,14</sup>

The battle at Pickett's Mill helps illustrate two points. First, it illustrates a situation in which orders are morally ambiguous even when it appears that one has all of the facts. Second, it highlights the difficulty of deciding what to do in a situation in which one's orders are morally ambiguous. Suppose that Hazen had decided, which it appears that he had, that his orders were immoral. What should he have done? He had three realistic options. He could have questioned General Howard and explained his reluctance to obey, he could have disobeyed, or he could have obeyed without comment. In this situation, Hazen should have questioned Howard about the order, especially because there was some time before the attack was to take place. However, what would the result of questioning have been? Probably it would have done nothing more than making Howard angry and reiterating the order. In that case, Hazen still would have been in a difficult situation as he would have to either obey or disobey the order.

Even supposing the order was unambiguously immoral, his decision would still be difficult. Were Hazen to disobey the order, he would likely be removed from command, and another officer would lead his brigade into the same battle. Moreover, he would no longer be in a position to try to prevent needless loss of life later in the war. Were he to obey the order (as he in fact did), the likely result would have been the unnecessary death of several hundred men. Still, Hazen could do what he could to minimize those deaths, and because he would still be in command, he could seek to minimize unnecessary deaths of troops in the future. Either way, the decision is difficult. Neither answer provides a satisfactory rule for what one should do in the face of an immoral order.

Case Study 9-4 is a well-known example of an illegal combat order (a war crime) that was clearly



an immoral order as well, and yet many of the American soldiers who received the order also carried it out.

**Case Study 9-4: My Lai and Following Orders.** Originally My Lai was thought to be a Vietcong stronghold, so the order was given to Lieutenant William Calley for his platoon to “kill everyone there.” Calley’s superior officers had built the raid up in importance. Military intelligence picked a market day when they thought the town would be empty of non-Vietcong (the civilian villagers would have traveled to a neighboring village for the market). In the face of absolutely no resistance (none of the soldiers received fire), Calley ordered his platoon to round up villagers, including women and children, and execute them. He further ordered his platoon members to burn huts. Both of these orders are illegal as well as immoral. Several of his men disobeyed, others fled. (Lieutenant Calley’s immediate superior, Captain Ernest Medina, who had given the original oral order to “kill everyone” was in radio communication as the killings were occurring.<sup>15</sup>) An aviation warrant officer who arrived on the scene had his men deploy against Calley and evacuated a group of civilians who were otherwise going to be executed.<sup>16</sup>

**Comment:** Calley was never directly ordered to kill unarmed civilians. In interviews afterward, most of the soldiers admitted they knew what was happening. Some ignored the orders, some obeyed and felt guilty, and some later committed suicide.<sup>15</sup>

Sometimes, an order is so obviously immoral, as the My Lai case demonstrates, that one should not obey it, even if it means one cannot help prevent further immorality in the future. But sometimes, it might be that one ought to obey the orders in order to minimize the immorality being performed. Such reasoning is dangerous, as it might allow one to rationalize obeying *any* order, and it might encourage a certain overestimating of one’s judgment and value, but it is possible that a situation might arise in which such reasoning was morally acceptable. For instance, it might be immoral to order one’s suicidal soldier to carry live ammunition during a parade, but as long as that is the only immoral thing one was required to do, it might be wise to oversee the activity to minimize the immorality that might result.

When one faces an order that one believes to be immoral, he should consider the following two factors. First, he must consider his moral obligation to follow orders and to follow them without questions; frequently time is of the essence in the military. He must consider it within the context of how much information he has, understanding that soldiers rarely have all the relevant facts in any given situation. In Eugene Sledge’s book, *With the Old Breed*,

at *Peleliu and Okinawa*,<sup>17</sup> he recounts a story that makes this point. As a young Marine enlistee during World War II, Sledge is ordered to wash out oil drums on a hot summer day. He and his buddies decided it was make-work and did a poor job. Several months later, at the front, he had to drink barely potable water out of those same poorly washed drums. While the order to wash the drums was not an immoral order, the issue of lack of information is illustrative of the problem.

Second, when facing an order that one believes to be immoral, he must consider both the consequences of his alternatives (as in the case of Pickett’s Mill) and the treatment of those around him (even if using soldiers for AIDS testing has good effects for society overall, it is still not permissible to use them for testing against their will). Both the overall consequences of the action (good for society) and how the action affects each human involved (tests on soldiers) are thus relevant. Sometimes the overall consequences are more important, and sometimes the poor treatment of even one person is more important. How to sort them all out depends on the specific features of each situation. Unfortunately, it is impossible to come up with a rule that explains how to weigh each of these two factors. Practical judgment and experience are essential guides. One cannot blindly follow a rule such as never lie, for there are times when lying is necessary. One ought to lie to a Nazi demanding to be told where all the Jews are. One must not *blindly* follow any moral rule.

Because the Army has an obligation to carry out its purpose, it should have competent and ethical leaders (this issue has already been discussed in Chapter 5, The Profession of Arms and the Officer Corps, and Chapter 6, Honor, Combat Ethics, and Military Culture, of this volume). An army cannot work efficiently if its members obey orders at their own discretion. Given the trust it must have in its leaders and the lack of information many subordinates might have, the Army demands that soldiers follow all legal orders.

This still leaves a problem for the soldier who knows, for one reason or another, that, appearances to the contrary notwithstanding, a particular order is immoral because of its effect on his army’s soldiers. In that case, the soldier must decide whether to disobey and possibly be punished, or obey and do something he believes to be immoral. That is, he is left in a similar dilemma to the one in which a conscientious objector finds himself. Unfortunately, there are cases when the morality of the order is not altogether clear. The Army’s position must be that all legitimate orders must be followed. It is



important to remember that most orders are appropriate and moral. Their occasional perceived impropriety frequently stems from lack of information. In the instances when they appear inappropriate,

the soldier must do his best to gather information as available, weigh the relevant factors as the case dictates, act according to his conscience, and accept the consequences of his action or inaction.

## CONCLUSION

Limited autonomy in the military is in stark contrast to autonomy in the civilian sector, especially in free societies. Resolving the dilemmas and apparent dilemmas that result often rests on remembering that the limits to soldier autonomy are currently voluntary in the United States due to the All Volunteer Force. The more difficult problems are often best addressed by recognizing the competing loyalties and ordering the conflicts of interest. Mo-

rality trumps all other responsibilities and interests; legitimate obligations to the US Army (when voluntarily entered into) trump other personal interests, and these personal interests come last. The difficult conflicts often come when a person has two important competing loyalties, such as the military and the medical profession, the military and certain religious beliefs, or the military and one's family.

## REFERENCES

1. Mill JS. *On Liberty*. Indianapolis: Hackett Publishing Co Inc; 1978: 9.
2. US Department of the Army. *The Army*. Washington, DC: DA; 1996. Field Manual 100-1, Chap 2.
3. Howe EG, Jones FD. Ethical issues in combat psychiatry. In: Jones FD, Sparacino LR, Wilcox VL, Rothberg JM, eds. *Military Psychiatry: Preparing in Peace for War*. In: *Textbook of Military Medicine*. Washington, DC: Office of The Surgeon General, US Department of the Army and Borden Institute; 1994: 115–131.
4. Beauchamp TL, Childress JF. *Principles of Biomedical Ethics*. 3rd ed. New York: Oxford University Press; 1989.
5. US Department of the Army. *Conscientious Objection*. Washington, DC: DA; 1998. Army Regulation 600-43.
6. Jones FD. Psychiatric lessons of war. In: Jones FD, Sparacino LR, Wilcox VL, Rothberg JM, Stokes JW, eds. *War Psychiatry*. In: *Textbook of Military Medicine*. Washington, DC: Office of The Surgeon General, US Department of the Army and Borden Institute; 1995: 1–33.
7. Jones FD. Traditional warfare combat stress casualties. In: Jones FD, Sparacino LR, Wilcox VL, Rothberg JM, Stokes JW, eds. *War Psychiatry*. In: *Textbook of Military Medicine*. Washington, DC: Office of The Surgeon General, US Department of the Army and Borden Institute; 1995: 35–61.
8. Jones FD. Disorders of frustration and loneliness. In: Jones FD, Sparacino LR, Wilcox VL, Rothberg JM, Stokes JW, eds. *War Psychiatry*. In: *Textbook of Military Medicine*. Washington, DC: Office of The Surgeon General, US Department of the Army and Borden Institute; 1995: 63–83.
9. *US v Huet-Vaughn*, ACMR 9101873, US Army Court of Military Review, 39 MJ 545; 1994 CMR Lexis 15.
10. *US v Seeger*, 380 US 163 (1965).
11. *Wiggins v Secretary of the Army*, US District Court, Waco Division, Civil No. W-90-CA-304.
12. US Department of the Army. *The Law of Land Warfare, 18 July 1956, Change 1, 15 July 1976*. Washington, DC: DA; 1976. Field Manual 27-10.
13. Bierce AG. The crime at Pickett's Mill. In: McCann W, ed. *Ambrose Bierce's Civil War*. Washington, DC: Gateway; 1988: 38–49.
14. Hazen WB. *A Narrative of Military Service*. Boston: Ticknor and Co; 1885: 256–264.

15. United States. Department of the Army. *The My Lai Massacre and Its Coverup: Beyond the Reach of the Law? The Peers Commission Report*. New York: Free Press; 1972.
16. Montgomery D. 30 years later, heroes emerge from shame of My Lai massacre. *Washington Post*. 7 March 1998: A1, A10.
17. Sledge EB. *With the Old Breed, at Peleliu and Okinawa*. New York: Oxford University Press; 1990.

# MILITARY MEDICAL ETHICS

## VOLUME I

### SECTION III: THE SYNTHESIS OF MEDICINE AND THE MILITARY

#### *Section Editor:*

EDMUND G. HOWE, MD, JD

*Director, Programs in Ethics, Uniformed Services University of the Health Sciences  
Chair, Committee of Department of Defense Ethics Consultants to the Surgeons General*



Robert Benney

Flashlight Surgery

Saipan

Doctors performing brain surgery by flashlight during a blackout necessitated by a Japanese air raid. The austerity of the surroundings is evident in the lack of medical equipment and supplies.

Art: Courtesy of Army Art Collection, US Army Center of Military History, Washington, DC.





# Chapter 10

## PHYSICIAN-SOLDIER: A MORAL PROFESSION

WILLIAM MADDEN, MD<sup>\*</sup>; AND BRIAN S. CARTER, MD, FAAP<sup>†</sup>

---

### INTRODUCTION

### OVERVIEW: THE PROFESSIONS AND SOCIETY

### THE PROFESSION OF MEDICINE

Ethics in Medicine

The Roles of the Physician

The Goals of Medicine in the Presence of Disease and Death

### THE PROFESSION OF ARMS

Ethics in the Military

The Roles of the Military Professional

The Goals of the Military Professional and the Impact of Violence and Destruction

### PROFESSIONAL SIMILARITIES BETWEEN MEDICINE AND THE MILITARY

### THE PHYSICIAN-SOLDIER: PROVIDING MEDICAL CARE AND CONSERVING LIVES

Understanding the Principle of Conservation

The Evolution of Conservation as Metaphor

Beyond the Metaphor of Conservation

### CONCLUSION

<sup>\*</sup>Colonel (Retired), Medical Corps, United States Army; formerly, Commander, Medical Element, Joint Task Force Bravo, Soto Cano Air Force Base, Comayagua, Honduras (1989); currently, Associate Professor of Clinical Pediatrics, Department of Pediatrics and Steele Memorial Children's Research Center, College of Medicine, University of Arizona, 1501 North Campbell Avenue, Tucson, Arizona 85724

<sup>†</sup>Currently Associate Professor, Department of Pediatrics, Vanderbilt University, A-0126 Medical Center North, Nashville, Tennessee 37232-2370; formerly, Lieutenant Colonel, Medical Corps, United States Army Reserve, Department of Pediatrics, Walter Reed Army Medical Center, Washington, DC 20307



John Wehrle

*Dustoff at Tan Son Nhut*

Vietnam, 1966

Just as the wounded soldier moves along a pathway from injury, to triage, to care, to recovery, military physicians need to travel along their own pathway of understanding themselves as both physician and soldier. Available at: [http://history.amedd.army.mil/art/vietnam\\_files/dustofftsn.jpg](http://history.amedd.army.mil/art/vietnam_files/dustofftsn.jpg).

Art: Courtesy of Army Art Collection, US Army Center of Military History, Washington, DC.

## INTRODUCTION

The medical profession is asked by society to prevent and treat illness and injury, and the pain and suffering that they cause. The professional oaths of medicine, from antiquity to modern times, have prevented medical professionals from being agents of death. Professional, civil, and criminal sanctions have also been used historically to prevent members of the medical profession from becoming involved in activities that led to the deaths of members of their society. Conversely, the profession of arms is tasked with defending members of that society by becoming directly involved in activities that lead to the wounding or death of others. How does a physician become a member of a profession that can and will use violence to achieve goals? How does one become a physician-soldier? Parrish notes that,

[m]aking doctors into soldiers was difficult, maybe impossible, because of the value judgments learned in our schooling and in our caring for the ill. Making doctors of soldiers would probably be easier....<sup>1(p9)</sup>

Physicians have “gone to war” for thousands of years. This is made necessary by the nature of war. The “end” or goal of war is to achieve control over others, generally for political advantage. The “means” or method of achieving this control is violence; violence that results in the wounding and death of many. Weapon systems have been perfected to take maximum advantage of human vulnerabilities, whether those be organic (ways to kill or maim) or psychic (ways to traumatize and render troops unable to continue the battle). The circumstances or ecology of war also increase the risk of disease. Large numbers of people are brought together, providing an increased risk of infectious diseases. Inadequate and contaminated food and water supplies, the stresses of battle, and poor hygiene, to name just a few, all lead to illness and death. Travel to faraway locales results in exposure to new types of infections, providing an increased risk of both acquiring and dying of diseases. Changes in sexual behavior and the opportunity for new partners results in increases in the incidence of sexually transmitted disease. Thus, both the weaponry and the environment of war bring suffering and death.

When injured, ill, or overwhelmed, a soldier can no longer contribute to military victory. By treating the wounded and other casualties, military physicians enhance their military’s ability to wage war. Thus, military medical professionals serve the po-

litical ends of society by enhancing its military capability. Their actions increase their military’s ability to destroy and kill. By having physicians in the military, societies ask, even order, physicians to be a part of a system whose means is a direct cause of an incomprehensible amount of injury, illness, pain, suffering, and death.

Physicians are made a part of that military system in a very formal way. They are sworn in as members of the profession of arms, taking the same oath as those who lead in combat. They wear the same uniform, have the same rank and title system as other soldiers, and are given the privileges granted by society to the profession of arms. These physician-soldiers also take at least rudimentary training in basic military skills and are issued a weapon when there is a threat to their well-being. Despite being declared “noncombatants” by modern rules of war, members of the medical profession have on occasion both killed and been killed during battle. Without question, they are in the military. Military medical professionals cannot separate themselves from the ends and means of that force.

Thus military physicians are members of two different professions that appear, at least on initial analysis, to be in conflict. The profession of medicine uses the resources of society to relieve pain and suffering and to prevent the early death of members of society. The profession of arms uses the collective efforts of individual members of the society to benefit society as a whole by threatening or perpetrating violence, with resultant pain, suffering, and death of individuals. Their relationships, obligations, and responsibilities appear to be contradictory, even mutually exclusive. How then can one be both physician and soldier?

Parrish<sup>1</sup> believes that a physician cannot be a soldier because the two professions have a different set of values. We posit, however, that the values are not that different. How can this difference of perception be resolved? It can be done by exploring the essence of the professions. That part of the discipline of philosophy that studies values, what is right or wrong, good or bad, is called ethics. In ethical theory one’s moral world is called *ethos*. Thus, if the question of being both physician and soldier is to be explored then it is necessary to explore the *ethos* of the two professions and see if they are in fundamental conflict. If the ethical relationship between the two professions is to be developed, it is necessary to first understand the *ethos* of professions themselves.



## OVERVIEW: THE PROFESSIONS AND SOCIETY

Profession: a vocation in which a professed knowledge of some department of learning or science is used in its application to the affairs of others or in the practice of the art founded upon it; applied especially to the three learned professions; divinity, law and medicine, also to the military profession.<sup>2</sup>

Modern societies are complex human organizations that exist to benefit their individual members through an intricate sharing of risks and benefits, rights and responsibilities. Within societies members take on a variety of roles at the same time and various roles over the course of their lifetimes. All societies have occupational roles that are set apart because of their special qualities. Some of these specialized roles are called professions.

The term professional means more than just doing something for financial compensation. Huntington described three characteristics of professions that separate them from vocations: (1) *corporateness*, (2) *expertise*, and (3) *responsibility*. These terms define the essential elements of modern professions.

Like the societies they serve, the professions are complex organizations. The classic professions of law, medicine, and religion are fundamental professions and provide examples of the essential professional attributes. Their *corporateness* allows them to provide a specific service, essential to the needs of society. The American Bar Association, the American Medical Association, and the hierarchical structures of the various religious denominations are simply the most visible portion of the complex organizational systems that define the roles of their respective professions and the relationships between each of them.

Every profession has a unique *expertise* that both defines and empowers it. Professions select, educate, and formally accept candidate members. The movement of individuals into the professional subculture is in part a rite of passage, a process by which the neophytes learn and accept the unique culture of their profession. By having generations of professionals go through a similar acculturation experience, both the profession and society can be assured that those values necessary for the functioning of the profession will be maintained.

Each profession also has a fundamental *responsibility* to provide society with an essential service. The profession of law manages the legal foundations that guide the interactions between members of society. Medicine in its broadest role is responsible for the physical and mental health of society. Members of the religious profession are responsible

for safeguarding and teaching the religious values that help form the moral basis for societies. And, finally, members of the military profession secure the safety and viability of the society in which all professions exist.

Professions exist to serve society, but such service also requires sacrifice. Benefit to the profession, or to its individual members, is a secondary effect of the profession's primary function. In return for their special status, members of professions are expected to place the needs of society ahead of their personal needs. When professionals fail to remember their special place as servants of society, and act primarily to benefit themselves as individuals or as a group, then they have broken the implied contract that establishes their privileged place in society's structure. In doing so they threaten their special status as professionals, individually or collectively.

It can be argued that a secondary role of the professions is to serve as a moral example to the rest of society. A professional, by fulfilling this obligation, reminds citizens of the necessity for each member of society, as a citizen of that society, to dedicate some portion of his life's work to the benefit of society as a whole. Citizens' lives are enhanced by membership in society. If they are to accept the benefits, they are morally bound by justice to accept the responsibilities of being a citizen. Professionals, acting out their roles, model this behavior.

Historically, the collective memberships of the professions have also seen themselves as responsible for maintaining the personal moral values of their members. Proper interpersonal relationships were codified by Percival in the first modern medical code.<sup>3</sup> The Uniform Code of Military Justice allows for charges to be brought against military officers, for example, for "conduct unbecoming an officer."<sup>4</sup>(Art134) Officers have been removed from positions of authority because of their failure to uphold moral standards. Thus, by acting out their professional lives and living as moral members of society, professionals and the professions to which they belong help form the moral underpinning of the societies that they serve.

The existence and the role of the professions, then, is defined by the service that they are to supply to the society. This service defines the corporate responsibility of the profession and its discrete, specialized body of knowledge. The client of each profession is society either as a collective or its individual members. The *ethos* of each profession is the values that define for the profession and the professionals their individual and collective rights and responsibilities.



## THE PROFESSION OF MEDICINE

But first We must speak of man's rights. Man has the right to live. He has the right to bodily integrity and to the means necessary for the proper development of life, particularly food, clothing, shelter, medical care, rest, and, finally, the necessary social services.<sup>5(¶11)</sup>

The profession of medicine is among the oldest of the professions. There is archaeological evidence of the practice of the healing arts dating back 30,000 years. The oldest written records of medical practice are from Egypt, dating back to 3500 BC. The first physician known by name was Imhotep, who practiced in about 3000 BC. (The Greeks later deified him as the god Asklepios, also referred to as Aesculapius.) The first healthcare system was probably in Mesopotamia at the time of King Hammurabi, about 2000 BC. It was well enough developed to have both a fee schedule and malpractice claims.<sup>6</sup> Physicians have been doing what they do for a long time.

The profession of medicine is composed of an organized group of men and women (*corporateness*), with a common, formalized body of knowledge (*expertise*), dedicated to a common societal role (*responsibility*). The profession of medicine seeks to help individual citizens, and the society as a whole, to achieve the physical and mental well-being necessary to contribute to and partake in the benefits of society, benefits whose foundation is the basic values of the society.

### Ethics in Medicine

Today's physician does not take a formal oath of allegiance to society or to the individual patient, although once physicians agree to provide care they take on a legal and moral duty to do so. However, the profession of medicine in the Western world does have a formal code of ethics, dating back to the Oath of Hippocrates. According to Veatch<sup>7</sup> there are two ethical principals that are central to the Hippocratic tradition.

First, the physician is to act to benefit his individual patient. This principle is found in numerous codes throughout history, including the Oath of Hippocrates,<sup>8</sup> Percival's code (the first modern code written in 18th century England),<sup>3</sup> and in both the Declaration of Geneva (1948)<sup>9</sup> and in the World Medical Association's International Code of Medical Ethics (1964).<sup>10</sup> The Hippocratic tradition calls for the use of the resources of society, as directed by the medical professional, to be used to benefit the individual. It is only in this century that the

physician's role to society as a whole has been a formal part of the Hippocratic tradition. The 1957 version of the American Medical Association (AMA) Principles states: "The honored ideals of the medical profession imply that the responsibilities of the physician extend not only to the individual, but also to society..."<sup>11(p3)</sup> However, this has been deemphasized in the most current version of the code, published in 2001: "A physician shall recognize a responsibility to participate in activities contributing to the improvement of the community and the betterment of public health."<sup>12(¶VII)</sup> The use of the resources of society by the physician to benefit the individual remains central to the formally stated ethical principles of physicians in the United States.

The second central ethic of the Hippocratic tradition is paternalism. Physicians are seen as being best suited to determine what is in their patient's best interests. Dr. Benjamin Rush, signer of the Declaration of Independence and a proponent of the demystification of medicine, argued that physicians should "yield to them [patients] in matters of little consequence, but maintain an inflexible authority over them in matters that are essential to life."<sup>13(p65)</sup> In an essay entitled "On the Duties of Patients to Their Physicians," he further stated: "The obedience of a patient, to the prescriptions of his physician should be prompt, strict and universal. He should never impose his own inclination or judgment to the advice of the physician."<sup>13(p65)</sup>

The current "Principles of Medical Ethics" of the AMA calls for the physician to respect the rights "of patients, colleagues, and other health professionals..."<sup>12(¶IV)</sup> It also states that "[a] physician shall be dedicated to providing competent medical care, with compassion and respect for human dignity."<sup>12(¶I)</sup> This is clearly less paternalistic, but these principles still allow the physician the ultimate decision of what he will or will not do. "A physician shall, in the provision of appropriate patient care, except in emergencies, be free to choose whom to serve, with whom to associate, and the environment in which to provide care."<sup>12(¶VI)</sup>

How physicians act out their roles has evolved greatly as a result of the combined effects of a changing understanding of the origin of disease and the role of science in providing the clinician with effective therapies. For most of human history medicine and surgery as they are known today did not exist. Safe and effective surgery was not possible until the development of anesthesia in the 1840s and the use of antiseptics in the 1850s. Safe and effective medicine is a post-World-War-II phenomenon. Lewis

Thomas, writing about his medical education in the 1930s, states:

But the purpose of the curriculum was...to teach recognition of disease entities, their classification, their signs, symptoms and laboratory manifestations, and how to make an accurate diagnosis. The treatment of disease was the most minor part of the curriculum, almost left out altogether....<sup>14(p40)</sup>

## **The Roles of the Physician**

If the foundation of modern medicine is such a new phenomenon, then what was the basis of medical practice for 30,000 years? Historically there are three fundamental roles that the physician has occupied: (1) physician as priest, (2) physician as philosopher, and (3) physician as scientist. Which role is operative has been determined by the understanding of the patients and their physicians on the nature of disease.

For most of the history of mankind the scientific foundation of physical and biological phenomenon was not known. Man could neither understand nor control the world in which he struggled to survive. The forces of nature were seen as the power of the "unknown." Disease was understood to be a sign of disharmony with magical or transcendental forces. Healing was seen as a manifestation of the restoration of a harmonious relationship with the supernatural. Death was a consequence of the loss of the supernatural or spiritual component of man—his soul.

When the cause of illness is supernatural the clinicians' ability to influence the course of disease depends upon specialized knowledge and relationship with the "unknown." Knowledge gave power—the power to heal. There was no objective power, no ability to cure. But there was profound subjective power, the ability to help patients see themselves as better. This power was derived from, and dependent upon, the community's belief in the clinician's abilities. Belief was the foundation of the power to heal.

With the coming of the ancient Greek civilization there developed the concept that the natural world was knowable, and controllable, through the natural faculties of man—observation, reflection, and reason. The possibility of man being able to control his destiny through experience and reason, not prayer and sacrifice, was critical in the development of all science, including the science of medicine. Empirical science was born, and with it empirical medicine.

One must attend in medical practice not primarily to plausible theories, but to experience combined with reason....Now I approve of theorizing also if it lays its foundation in facts and deduces its conclusions in concordance with phenomenon.<sup>15(p154)</sup>

Greek medicine saw disease as resulting from disharmony within the patient, or between the patient and the natural world. Writing on epilepsy Hippocrates said:

Men regard its nature and cause as divine from ignorance and wonder. But the brain is the cause of this disease, as it is the cause of every other great disease.<sup>15(p154)</sup>

Empiricism provided a framework for explaining natural phenomenon within the natural order, making it accessible to observation and reason. The structure allowed it to be organized and written down, and thus it could be taught in a systematic fashion. Perhaps most importantly, it established a framework that allowed for growth and development of the body of knowledge. Health and disease controlled by supernatural forces meant that the question of their control could not be approached directly. The priest-physician could only heal through the power of the "unknown." The empiricist-physician had the potential of learning to deal with the problems of injury and illness directly.

With the development of the scientific method, science moved from subjective observation and reasoning to objective experimentation. Objective science provides the means to understand, diagnose, and treat disease. At best the physician-priest and the physician-philosopher sought healing, that is, subjective improvement. The physician as scientist seeks to bring about objective cure.

Historically, then, physicians have operated in different ways—as priest, as empiricist, and as scientist—to meet their professional responsibility of healer and ultimately curer in their community. Although appearing at first view to be distinct and noncomplementary, these various modalities must merge if clinicians are to fulfill their role. This complementary nature derives from the basic essence of medicine as both a science and an art. As scientist, the clinician offers the chance for objective treatment and, hopefully, cure to his patients. As an empiricist, the clinician seeks to apply objective therapies to the unique physiology of the patient seeking help. And as priest, the clinician seeks to understand the psychological and sociological context of the particular patient and how it influences the disease process.

## **The Goals of Medicine in the Presence of Disease and Death**

These three modalities of the physician fit well the three principal goals of the profession of medicine: (1) prevention whenever possible; (2) curative treatment when prevention fails; and (3) healing, the relief of pain and suffering, when specific treatment will not benefit the patient. Each of these goals—prevention, curing, and healing—can only be understood and achieved through the combined efforts of the physician and patient. The physician acts without effect if he does not act in concert with the patient. The patient and physician must work together to achieve a common understanding, albeit at different levels, of the nature of the patient's concerns, their cause, and accepted modalities of effective prevention, treatment, or amelioration.

The practice of medicine in its broadest sense includes the whole relationship of the physician with his patient. It is an art, based to an increasing extent on the medical sciences, but comprising much that remains outside the realm of any science. The art of medicine and the science of medicine are not antagonistic, but supplementary to each other....<sup>16(p88)</sup>

From the first clinical encounter the doctor-in-the-making is exposed to human secrets that are not available outside of the profession. The young physician first stands at the sidelines and then is drawn into the inner circle as his knowledge and skills allow.

This is the physician's privilege: to be lifted out of the dross of common days in order to experience such clarity of feelings. The intensity of birth and death, pleasure and sorrow as expressed in the lives of others has the power to nullify personal boundaries in sudden communion....<sup>17(p147)</sup>

The sharing of these experiences results in relationships that may be profoundly important for both the patient and the practitioner. The central role that relationships have in the practice of medicine is shown by their central place in physician's codes from antiquity to the present. The physician is first bound to other members of his or her profession:

To hold him who has taught me this art as equal to my parents and to live my life in partnership with him, and if he is in need of money to give him a share of mine, and to regard his offspring as equal to my brothers in male lineage and to teach them this art—if they desire to learn it—without fee and covenant.<sup>8(p3)</sup>

The very complexity of modern medicine also binds them together. Modern medicine is a corporate exercise. No single healthcare professional is capable of doing all that is necessary to provide healthcare to an individual patient or to a population. The body of knowledge is too great, and the technological skills too many and too varied for one physician to master. Science-based medicine demands all the efforts of a community of individuals, seen and unseen, acknowledged and not acknowledged, for success. Physicians are also bound to their patients by the experiences that they share:

What I may see or hear in the course of the treatment or even outside of the treatment in regard to the life of men, which on no account one must spread abroad, I will keep to myself holding such things shameful to be spoken about.<sup>8(p3)</sup>

For some physicians the realities of the medical professional's role forces them to distance themselves forever from those whom they seek to serve. For others, there develops a profound sense of their role that bonds them ever closer to their patient—not as family, not as friend, but as doctor.

No, for me fulfillment comes from the sudden intimacies with total strangers—those moments when the human barrier cracks open to reveal what is most secret and inarticulate. A word can betray the deepest emotion. A look can reflect a world of feeling. Illness strips away superficiality to reveal reality in etched detail. The revelation can fuse together disparate lives in unexpected kinship. Is it the fear of death, the dreaded pain, the sorrow, or the loss?<sup>17(p148)</sup>

Physicians do not create life, but they are involved with the mother in assuring that the creative process is successful. Physicians do not determine the quality of their patient's lives, but they have the power to greatly influence that quality, both for the good and the bad. Lastly, physicians do not kill, but they often directly influence both the timing of death and the quality of the dying process. Physicians are granted by their knowledge and professional position the power to influence the living and dying of those under their care. Such experiences can forever change how physicians see themselves and the world in which they live and work.

The profession of medicine, like the other classic professions, exists as a society within the society that it serves. Its fundamental role is to provide for the healthcare needs of the society. In order to accomplish this it must work both with individual patients and members of other professions. Historically, the

strongest bond of the physician is not to the society, but to the individual patient. In general, the physician decides how the resources of society will be used to advance healthcare of individual patients. The physician takes no oath of obedience to higher authority. Except in emergencies the physi-

cian is allowed to remove himself from the care of a patient should he wish to do so. The physician is at some risk from the stress of dealing on a regular basis with the issues of birth, injury, illness, and death. However, the risks to the physician are minimal compared to those of the professional soldier.

## THE PROFESSION OF ARMS

*Profession is the correct word for the calling of the career officer today....*<sup>18(p147)</sup>

Of the four classic professions—law, medicine, ministry, and arms—the profession of arms is the youngest. Societies have always competed. Indeed, the use of violence to achieve political gains predates recorded history. Throughout history men have made war their life's occupation. In general, membership in the ruling classes determined who would lead in battle. There was no true profession of arms as it is defined here. Mercenary armies were organized, fought, and were then disbanded. But there was no group of citizens, formally educated in warfare, who dedicated their lives to ensuring the political security of their respective societies. Soldiers for pay existed, but not professional soldiers.

It was not until the beginning of the 19th century that the profession of arms, as it is known today, came into existence in Western culture. It came into being when changes in governments, their armies, military technology, and the tactics of war combined to make a professional officer corps necessary. War simply became too complicated for amateurs.<sup>19</sup>

### Ethics in the Military

In the United States the profession of arms, like the profession of medicine, is manifested by a group of men and women dedicated to a common purpose (*corporateness*). Through education and training the profession's members become skilled in the art and science of warfare (*expertise*). Their goal is to provide for the security of their client state and to provide it with the means to extend its political will through the use of threatened or actual violence (*responsibility*). Their dedication to the service of their society is shown by their willingness to sacrifice their lives in order to meet their society's political-military goals. Their willingness to take on this burden is formally expressed in the oath that they take (Exhibit 10-1, Figure 10-1).

In taking this oath, military professionals do not

swear to defend the physical boundaries of their country, although that would surely be required were they threatened. Instead they promise to support and defend the Constitution of the United States—the body of laws that delineate the legal structure and moral values upon which the United States is based.

The Declaration of Independence asserted that the signatories, as representatives of many other colonists, no longer shared the moral values of the British government. It further expressed the fundamental values that would define the new nation. The Constitution of the United States (including the Bill of Rights, and later amendments to the Constitution) further defined and guaranteed those core values. The US Constitution is the formal expression of who Americans are as a nation and what

#### EXHIBIT 10-1

##### THE OATH OF ENLISTMENT/REENLISTMENT INTO THE ARMED FORCES OF THE UNITED STATES (REGULAR AND RESERVE COMPONENTS)

[For swearing officer: Repeat each line, then allow applicant(s) to repeat.]

I, (State your full name)

Do solemnly swear (or affirm)

That I will Support and Defend

The Constitution of the United States

Against all enemies

Foreign and domestic;

That I will bear true faith

And allegiance to the same;

And that I will obey

The orders of the President of the United States

And the orders of the Officers

Appointed over me,

According to regulations

And the Uniform Code of Military Justice.

So help me God.



Americans stand for. By acting to protect and defend the Constitution, members of the United States military are acting to protect and defend the fundamental values of their society.

The requirement for absolute obedience to the hierarchy that is expressed in the military oath has, at times, been held in disdain in the United States because of the limits that it places on individual freedom of choice and action. However, such a requirement is essential. The profession of arms has at its command sufficient force to destroy what it is meant to protect. A military profession that does not swear allegiance to lawful civil authority is ultimately more of a threat to, than it is a protector of, its society.

### The Roles of the Military Professional

In practice, the duty of the professional soldier to protect his society and its fundamental values presents the military professional with specific responsibilities. Huntington, in an essay entitled "The Military Mind," defines three distinct roles for the professional soldier as a servant of society. He is to be: (1) a *counselor* to his client government, (2) an *executor* for the military requirements of his nation, and (3) the *spokesman* for the military needs resulting from political decisions. These three roles provide the means by which the military professional meets his professional responsibility to society.<sup>20(p37)</sup>



**Fig. 10-1.** "Private Rodrigo Vazquez (left) is sworn into the US Army by Major General Dennis Cavin as Vazquez's parents (center) and Secretary of the Army Thomas White (far right) watch during a ceremony in the Pentagon on September 4, 2001. Vazquez's enlistment was part of a press briefing conducted by Cavin and White on the Army meeting its recruiting goals. Cavin is the commanding general, US Army Recruiting Command. Department of Defense photograph by Helene C. Stikkel.

The price to society of incompetence or failure in each of these roles is high. If the senior military professionals fail to adequately counsel their governments, the very existence of their nations may be threatened. As the executor of military plans, the professional soldier who fails to adequately train, supply, and lead his forces, leads them to failure. Their individual lives are wasted and the threat to the client nation is increased, not decreased. Lastly, as spokesman for the military, the soldier must be reasoned in his request for the resources of society. If they are overzealous in seeking support for military programs, their country may spend itself into political decline. Thus, the military professional carries a great responsibility whether he performs as counselor, executor, or spokesman in military security matters.

The soldier, unlike any other professional, is expected to risk his physical and mental well-being or individual freedom when necessary to achieve his society's political goals. He can be wounded, killed, or captured. This requirement is clearly spelled out in the following excerpts from the *Code of Conduct for Members of the Armed Forces of the United States*:

I am an American, fighting in the forces which guard my country and our way of life. I am prepared to give my life in their defense.<sup>21(Art1)</sup>

I will never surrender of my own free will. If in command I will never surrender the members of my command while they still have the means to resist.<sup>21(Art2)</sup>

### The Goals of the Military Professional and the Impact of Violence and Destruction

The risk to the soldier is not just to his physical health and well-being. The milieu of the profession continues the acculturation process of the professional soldier, and may result in an experience—the battlefield—that greatly alters his view of the world and his role in it.

Perhaps it should not be written or said, but the battlefield can be a place of frightening beauty and fierce love.... No other venture reveals as much about the condition we call life, the mystery we call death....<sup>22(pw23)</sup>

Many veterans who are honest with themselves will admit, I believe, that the experience of communal effort in battle...has been the high point of their lives.... Despite the horror, the weariness, the

grime, and the hatred, participation with others in the chances of battle had its unforgettable side which they would not have wanted to have missed....<sup>23(p44)</sup>

In his volume, *The Warriors, Reflections on Men in Battle*,<sup>23</sup> Gray listed three enduring appeals of war: (1) the delight in seeing, (2) the delight in comradeship, and (3) the delight in destruction. These attractions are a continuation of the acculturation process that is necessary if the professional soldier is to survive and succeed in achieving his government's military-political goals.

Because of the intense, primordial environment in which they exist, the elements of seeing, comradeship, and destruction take on the nature of passions. As passions, they draw men to battle and, once they are there, lead men to act in ways not otherwise imaginable. These attractions of war are both the means of victory and the seeds of destruction for men and armies.

The passion of seeing is a common experience. In seeing the unique all are drawn to the subject. There is a desire not only to witness, but to live the extraordinary. Through first passively, then actively, experiencing the new reality, the new, the extraordinary, becomes the ordinary. Humans are truly voyeurs, seeking to journey to a different world.

In war the experience may be so overwhelming that there is a risk that the soldier, sailor, airman, or Marine may lose contact with his previous reality. During the Vietnam War, American soldiers perceived that the world they were then living in was so different that it became totally distinct from the world they had left behind. Vietnam was "The Nam," the United States was "The World." They had literally been sent out of the world.

Over time the soldier moves from being an observer to an active participant in the death and destruction of war. There is a good reason to do this. The soldier must do so to survive.

And just as the bodies had become a part of the earth on which they rested, so I had passed during the battle from being in the war to being part of the war. I was no longer an alien in a strange environment. I could no longer draw a distinction between the war and my presence in it. The preceding weeks had prepared me, but the battle itself had caused the final metamorphosis. The war had become a part of me and I of it. And though my recognition of that fact was unnerving, I knew that probably within my transition lay the seeds of my ultimate survival....<sup>24(p92)</sup>

The next attraction of war is perhaps best described in the phrase, "this band of brothers." Professional soldiers promise to die in defense of their society. But in reality men do not die for ideals, they die for each other.

Numberless soldiers have died, more or less willingly, not for country or honor or religious faith or any other abstract good, but because they realized by fleeing their posts and rescuing themselves, they would expose their companions to greater danger....<sup>23(p40)</sup>

This bonding is integral to any profession, but it is perhaps most profound in the profession of arms, and within distinct segments of the profession, as a result of what the members have experienced together.

These unspeakable experiences bond professional soldiers together in ways that forever change the lives of those who survive. Part of the postwar experience for some veterans is a feeling that the remainder of their life has less validity because it can not match up to the experience or intensity of war. The relationships that they developed in combat seem to pale those of civilian life. And the losses that they experienced in combat are often beyond their ability to share with civilians or to reconcile with their own good fortune to have survived. The note below, left at the Vietnam Memorial, speaks for many of them.

My dear friends, It is good to touch your names, your memory, and to visit with you. I've struggled in your absence. I've been so angry that you left me. I miss you so much! I've looked for you for so long. How angry I was to find you here—though I knew you would be. I've wished so hard that I could have saved you.<sup>25</sup>

Now in their civilian lives, they are no longer bound together by life-or-death struggles. Instead they live the day-to-day realities, fearing, or perhaps knowing, that what they experienced will never be duplicated. Thus men are attracted to war, not just by what they see and by what they do, but by the relationships that develop when men fight and die together. War attracts men by the bonds it forms, bonds that are literally worth killing for, and dying for. The last attraction is the violence that leads to all the killing and dying.

The professional soldier, utilizing those under his command, is the actual means that society uses to achieve its political goals through the use, or threatened use, of violence. This capacity to commit violence gives the soldier the potential of taking what

he wants, when he wants, and how he wants. The actual use of violence by soldiers can result in the breakdown of other societal limits on behavior. It is no longer possible, if it ever was, to limit the violence of war to only that which is necessary to achieve the specific military mission, and thus achieve the political goals. The emotions that arise in battle, and the chaos that is integral to combat, assure that the destruction in warfare will, at times, exceed that which is militarily and politically necessary.

War is, at its very core, the absence of order; and the absence of order leads very easily to the absence of morality, unless the leader can preserve each of them in its place....<sup>24(p62)</sup>

Therefore, the power of violence can destroy more than just buildings and bodies. It will distort and may destroy the moral limits that normally bind behavior. In the beginning the soldier may have difficulty accepting the level of violence inherent to warfare. As time goes on the soldier undergoes a necessary metamorphosis, necessary both for individual survival and military success. Violence becomes a way of life and, in a bizarre way, of creating new life. Violence gives the soldier the ability not only to see the world anew, but also to make it anew. War is about destruction and creation, the life and death of both individuals and societies.

Ground combat is personal....It is a primordial struggle....Emotions flow with an intensity unimaginable to the non-participant: fear, hate, pas-

sion, desperation. And then—triumph!....The sense of relief is identified as pleasure in being alive, and life itself is purchased at the cost of someone else's death. Kill or be killed: the emotional result is pleasure at the sight of the enemy dead. Yes, that must be the reason for the sensation—a celebration of life....<sup>24(p159)</sup>

Thus men and women are drawn to the profession of arms both by their desire to serve society and by the inherent attractions of the ultimate means of the profession—war. War, because of its tremendous capacity for destruction of property, lives, and values places both those who fight it, and the society they fight for, at grave risk.

This, then, is the *ethos* of the profession of arms. It is a society within a society. It exists to serve society by protecting its very foundation, the legal and moral framework upon which the society is based. Its means is the threat of force or the actual use of force in direct support of the political aims of the society. The potential power of the profession is so great that absolute obedience is essential if the society is to be protected from that which is supposed to protect it. As a result its members swear absolute obedience to the political will of society as expressed by its government. As a consequence they can be ordered to use violent force in situations where they may personally disagree with the political will of their society. In doing so, military professionals risk capture by the enemy, injury, and death. They may also experience events that forever change how they see themselves and the world in which they live.

## PROFESSIONAL SIMILARITIES BETWEEN MEDICINE AND THE MILITARY

Thus far these two professions—medicine and the military—have been separately discussed in their idealized aspects. Medicine seeks to help individuals remain healthy, or to restore them to health, or to ease their suffering if they cannot be cured. Societies benefit from having healthy citizens. The military seeks to protect its society by dissuading others from attacking that society, but if this dissuasion fails, then the military is allowed, indeed required, to unleash its arsenal of violence to protect its society. These are two very different professions, yet societies, if they are to survive, need both of them, just as they need laws and moral direction. The physician-soldier bridges these two professions.

The similarities between these two professions are seen in a number of arenas, as summarized in Table 10-1. For instance, to be successful, the physician must operate at a variety of levels in a close

relationship with his patient. This results in a milieu that at its core can attract the neophyte physician in the same way that the young military professional is attracted to his milieu—war.

It is not an accident that many words of clinical medicine are the words of war. For instance, a *war* is being waged against cancer, diseases *attack* the body, and the physician *aggressively* uses everything in his *armamentarium* to claim *victory* for his patient over the disease. "We will defeat cancer in our lifetime," was a long standing pledge of the American Cancer Society. Tumors invade tissue. They are destroyed by radiation or chemotherapy. Antibiotics kill bacteria. These are not the words of passive exercises. They are the words of battle, a battle that can result in the death or debilitation of the patient if not successfully fought. This vocabulary is appropriate because for many patients and medical



professionals who help them, the perceived ultimate responsibility of the practitioner is to defeat death.

The role of the medical professional results in attractions similar to those of the profession of arms. This similarity in attractions occurs because the milieu of both professions involve the same significant life events: illness, injury, pain, suffering, and death. In dealing with these realities the doctor undergoes the same kind of acculturation that the professional soldier experiences. The physician is transformed by similar experiences; sights that transform, relationships that bond, and the experiences of birth and death that can change reality for both the patient and the physician. These experiences serve as the foundation of the attraction of the profession for many.

### THE PHYSICIAN-SOLDIER: PROVIDING MEDICAL CARE AND CONSERVING LIVES

The simplest way to answer our question regarding any fundamental conflict between the professions of medicine and the military is to say that the question does not exist. As Huntington put it,

Individuals, such as doctors, who are not competent to manage violence but who are members of the officer corps are normally distinguished by special titles and insignia and are excluded from positions of military command. They belong to the officer corps in its capacity as an administrative organization of the state, but not in its capacity as a professional body...<sup>26(p28)</sup>

In Huntington's view physicians in the military are not really members of the profession of arms. They are not warriors. They only function administratively as soldiers. Military issues are peripheral to what they do and what is really important in their professional lives. The military *ethos* is seen as alien and irrelevant.

There is support for this position by "the line," those in the combat arms who are trained to do the fighting. Doctors are seen as necessary, but peripheral to the mission. As a class, they are known (with some justification) for their less than ideal military appearance and relaxed view of military relationships and attitudes. This relaxed view is accepted because what the warrior wants to be sure of is that the physician is competent as a physician. The soldier facing combat understands that his survival may depend upon the medical skills, not the military skills, of the physician. So the physician becomes "the Doc," accepted, supported, respected in his own way, but clearly not part of the brotherhood of arms.

There is one arena in which there are few, if any, similarities between the professions. With rare exception, the ethics of the medical profession allow the physician to escape his world of injury and illness, pain and death. The medical professional can practice when, where, and how he wants, limited only by the market forces that exist. He cannot be ordered to treat a particular patient, nor can he be ordered to practice medicine at all. The military professional lacks this autonomy. Having examined the two professions separately, and then having noted their similarities, it is time to address the central theme of our discussion: Is there, then, a fundamental conflict between the two professions and their attendant roles, that is, in being both physician and soldier?

This approach also is accepted by the physicians. Military physicians see themselves in rather individualistic terms, even within their own profession. It was easy for military physicians to see themselves as professionally responsible for their military patients and their families without being part of the world that surrounded them. What the warriors do or train to do is germane only insofar as the influence that it has on the illnesses and injuries that result.

This view of physicians in the military is also accepted by the international community. Military physicians and those under their direct command are accorded a special "noncombatant" status. Under the Geneva Conventions such noncombatants may not engage in offensive actions, though they may defend themselves and their patients if attacked. If captured they are, at least in theory, not prisoners. Their status is that of "detained persons." Under international law, physician-soldiers are not quite soldiers.

But just as the professional soldier who spends most of his career preparing to go to war may find his attitudes change in the reality of war, members of the profession of medicine may be forced by circumstance to act as members of the profession of arms. They must take on at least some of the *ethos* of the profession of arms if they are to survive, mentally and physically. When this occurs the physicians may be forced to face the question: "Is there a conflict being both physician and soldier?" The answer is no.

There is nothing in the *ethos* of the professions of medicine and arms that prohibits an individual from being a member of both professions. Both



serve society by providing society with an essential service. They have different ends, yet the ends are certainly compatible, even mutually supportive. Without security neither individuals nor their society can benefit from the profession of medicine. Conversely, physical and mental health allow citizens to both enjoy the fruits of their society and to be better equipped to handle threats to its fundamental values. The existence of both professions is essential for the stability and development of society. The amount of resources to be spent on each can be argued, but not their fundamental importance.

When comparing the two *ethos* it is clearly arguable that the military professional potentially risks more for less personal benefit than does his medical professional colleague. Soldiers place themselves at significant personal risks in the acting out of their professional role. They can be ordered to act out their role even when they disagree with their

superiors. The success or failure of their professional actions and those under them may have a direct impact upon the existence of their society. Lastly, the attractions of war, the ultimate milieu of their profession, may forever alter their view of themselves and the world in ways that may make it difficult for them to adjust back to normal life.

The world is a different place for the medical professional. Even in this day of HIV infection, medical professionals place themselves at little or no risk in carrying out their professional roles. They can, except in emergencies, refuse to act out their professional role, for any reason, without the risk of censure. The effect of the success or failure of their professional actions rarely extends beyond their patients and their families. Like their military colleagues, the stress of their professional roles may result in their developing perspectives that place them at odds with that of the rest of society. However,

**TABLE 10-1**  
**COMPARISON OF MILITARY AND MEDICAL PROFESSIONS**

Professional Concern	Profession of Arms	Profession of Medicine
Who is the client of the profession?	The client of the profession of arms is the state.	The client of the profession of medicine is the individual patient and, through each patient, society as a whole.
What is the nature of the professional-client relationship?	The profession of arms is subservient to the society. It is directed to fulfill this role by the command authority of the government, and must respond with absolute obedience to any lawful commands.	Historically the patient has been subservient to the medical professional. However, this relationship is evolving into one of shared responsibility and authority. Except in the case of emergency, both patients and professionals have had the right to accept, reject, or terminate the professional relationship. Neither party has the right to dictate to the other.
What are the ends of the profession?	The profession of arms is responsible for assuring the security needs of the society. In the United States its fundamental role is the defense of the Constitution, the basic principles upon which American society is based.	The profession of medicine is only one of many social agencies, including individual patients, that are responsible for assisting individuals and society in achieving their health goals.
What are the means of the profession?	The means of the profession of arms are violence and the threat of violence on a massive scale.	The means of the profession of medicine are science-based technology and the cooperative relationship between the physician and patient.
What are the obligations of the professional?	Military professionals may be ordered to sacrifice their physical and mental health or their lives in order to achieve the end of the profession. They must obey orders specifying how, where, and with whom they will meet their obligation. They must also give similar orders to their subordinates.	Medical professionals can choose the location and nature of their practice and to whom to offer their skills. Only in the case of medical emergency are medical professionals obligated to offer their services.

rarely, if ever, does this result in the physician having difficulty living a normal, day-to-day existence.

If there is a conflict, it resides with the means of the two professions. Those of the profession of arms are designed to produce pain, suffering, and death, or at least threaten those events. The means of the profession of medicine are designed to relieve or delay such events. Can a physician be part of an organization that uses violence or the threat of violence to meet its professional responsibilities? The answer is yes.

Societies, like the individuals that form them, have the right to self-defense. Without this right neither individuals nor their societies can survive. The threatened or actual use of force is morally acceptable if the fundamental structure of the society is threatened, either directly or indirectly. The use of force, be it by individuals or societies, can be (and often is) immoral. But the use of force is not, by its nature, immoral.

The physician, as a citizen, has the same rights and obligations to act in the defense of society as does any other member of society. The physician, by serving his society in time of war as a physician, is simply meeting his responsibility to defend his society with a special (and greatly needed) expertise. He is not violating his professional responsibility to relieve pain and suffering; rather it is being met in a special way. Being both a physician and soldier does not detract from the role of the medical professional; it enhances it. Thus there is no fundamental ethical conflict in being both physician and soldier. There is, in fact, a basic principle of military action that joins the professions together in war. The principle is that of conservation of force. This principle is sometimes attacked by those who do not understand it as it applies to military medicine. Therefore, it will be explored in some detail to answer the concerns and criticisms of those who would maintain that one cannot be both a physician and a member of the military profession.

### **Understanding the Principle of Conservation**

The physician-soldier is challenged during military operations to “conserve the fighting strength” of the combat arms units he supports. To meet the obligations of his charge, he must involve himself in the training, planning, and execution of his unit’s specific mission. But what is this principle of conservation? What does it entail? And is it an applicable principle for the physician-soldier in both peace and in war? To better understand the prin-

ciple of conservation of force, it is necessary to look at “operational” conservation and “ecological” conservation. Briefly, “operational” conservation revolves around the conservation of the resources of a specific group or unit, directed toward a particular goal, whereas “ecological” conservation looks at the entire, perhaps even global, environment.

### **“Operational” Conservation**

Conservation of military (fighting) strength is fundamental to the success of any given military operation. The military commander uses the resources entrusted to him—men and materiel—to accomplish the assigned mission. As Patton might have put it (albeit more forthrightly), “Son, the idea is not for you to die for your country, but for you to help the other guy die for his.” In the process of “helping” the enemy die for his country, the commander must allocate his manpower appropriately.

You use them up: they’re matériel. And part of being a good officer is knowing how much of them you can use up and still get the job done.<sup>27(p141)</sup>

But soldiers are more than just war materiel. They are human beings. They are the sons and daughters, mothers and fathers, husbands and wives of the society that has sent them to war.

Family members of soldiers in your command won’t remember if you took “X” hill on “X” day in a battle. They will remember if their son came home.<sup>28</sup>

These most precious resources are to be spared undue loss or waste. They are to be preserved and maintained toward an end that typically exceeds the immediate goals of victory in battle and returns them to their homes. Surely, the military strategist employs the principle of conservation when planning military operations.

The leaders of a nation’s armed forces must at some point in their development of military strategy look upon manpower as a finite resource.<sup>29(p16)</sup>

Eikenberry explains that in the operational context, a military commander may choose to emphasize the conservation of his manpower for a number of different reasons<sup>29(p16)</sup>:

- the uncertain nature of the direction of the conflict,
- a calculated poor probability of success,

- to bide time while building strength,
- to avoid engagement and exhaust an enemy, and
- the commander's sense of compassion and the burden of responsibility he grapples with in ordering men into battle, which give him pause and a desire to avoid loss.

Similarly, a physician uses principles of "operational conservation" in his daily practice. Examples of this include assessing the body's physical reserve in determining how aggressive one can be in treating the disease (for example, not removing 90% of the lung to eradicate a disease), holding certain antibiotics "in reserve," assessing likelihood of success, using risk-to-benefit ratios to determine treatment modalities, scheduling drug "holidays" to provide rest and recuperation, and using compassion for the amount of suffering inflicted on the patient ("first do no harm"). But beyond the operational context of conserving strength, the principle of conservation is finding recognition in another and broader area of note that validates its utility for the physician-soldier, that area being "ecological" conservation.

### *"Ecological" Conservation*

A major ethical theme of global concern in recent decades has been what to do in order to balance the demands of an expanding world population within a finite and oftentimes fragile natural environment. The extent to which environmental development has occurred (in the name of sustaining human population growth needs) might well be considered exploitative. But when the issue is critically analyzed, both sides of the dilemma give cogent arguments for thoughtful human action. Development of the environment to accommodate humans with very real and present needs must be balanced with the goals of preserving the environment for the future and protecting it from further exploitation. What is required to resolve the differences between parties on either side is an informed moral approach. This approach develops from the recognition of conservation as being applicable to both the developers of the environment and those who claim to be its conservators. Ideally such an approach would emanate from the grassroots populace, that is, it would make sense to everyone. Pursuit of alternative management approaches that mutually involve environmentalists and developers would follow. Both the individual citizen and the collective society would be morally cognizant

and obliged to act upon this principle.

Kidder notes that "conservation...is part and parcel of our very humanity."<sup>30(p205)</sup> Many of the actions taken as human beings involved in family, community, and institutional life reflect the consensual upholding of the value of conservation. Individuals are encouraged to engage in long-range planning, defer immediate gratification, and employ rational foresight to effect a better life now for themselves or for generations to come.<sup>30</sup> Not surprisingly, those things that become "part and parcel of our very humanity" are very often expressed in metaphors in daily speech, as well as throughout written communications.

### **The Evolution of Conservation as Metaphor**

In modern medicine, a number of metaphors have been used to frame the discussion of healthcare issues among professional staffs, the public, and policy makers. Two widely recognized metaphors in the United States have been the military metaphor, as previously discussed in this chapter, and more recently the market metaphor (healthcare systems *market products to consumers*, physicians become *providers*, and the goals of medicine are directed toward a healthy *bottom line*). These metaphors, although in certain circles facilitating communication and depicting a part of what modern medicine is about, are necessarily narrowly focused and incomplete. The military metaphor calls forth a male-dominated, hierarchal, and intrusive system that may focus on short-term *tactical* goals rather than the whole patient or patient's sense of wellness within a broader community. As Annas notes,

Military thinking concentrates on the physical, sees control as central, and encourages the expenditure of massive resources to achieve dominance.<sup>31(p745)</sup>

The market metaphor, Annas goes on to explain, is similarly flawed. It portrays the ill (and potentially vulnerable) patient as a consumer fully capable of making a rational decision from myriad treatment options, motivated by choice, economy, and contractual arrangements despite the prevailing corporate control of the marketplace.

The market metaphor conceals the inherent imperfections of the market and ignores the public nature of many aspects of medicine.<sup>31(p745)</sup>

A third alternative, espoused by Annas, is the "ecologic metaphor." The language of ecology, in-

cluding terms such as conservation, applied to healthcare could well influence the way medicine is discussed and practiced. This metaphor shifts the emphasis away from the individual in isolation and views him within the whole of his niche or habitat. It requires the recognition of limits, a sense of community, and responsibility for something greater than oneself—indeed beyond the immediate lifespan of any individual. This metaphor emphasizes prevention and public health measures rather than heroic yet wasteful interventions at the end of life. In matters of resources and technology it would, perhaps, lead to the favoring of “sustainable technology over technology we cannot afford to provide to all who could benefit from it...”<sup>31(p746)</sup>

These ideas, then, frame the principle of conservation as it might be applied in peacetime and battlefield medicine. The physician-soldier is both aware of and involved in implementing some of these ideas, perhaps unwittingly, in his daily practice of medicine. When called to an operational setting and asked to employ the principle of conservation toward the conservation of fighting strength he recognizes his goals as minimizing casualty losses, and preserving and maintaining human life—the essence of “operational” conservation. However, in a more global (or strategic) sense, he may redirect his typical efforts aimed at individual patient well-being toward more broadly aimed goals of preserving the integrity of a military unit. But this is not substantially different from viewing the individual patient and his well-being within the context of a community or larger society.

Similarly, the military professional must be able to view the soldiers in his unit as parts of a greater whole and recognize that strategic decisions may require their interests to become secondary to societal needs. Once again, the two professions are not all that dissimilar in their approach to serving the greater good.

In fact, the soldier-patient in battle is synonymous with the civilian-patient in peacetime. Both bring to the patient-physician relationship a need for help that directs a specific area of the relationship. The patient brings three needs for help: (1) one of the patient to himself, (2) another to the physician, and (3) yet another to society and the environment. The physician, whether in the military or not, also enters three relationships: (1) one of responsibility to the sick person, (2) another to fighting the disease, and (3) yet another to society. Every physician, then, holds obligations to these three parties and addresses each toward the ends of health and well-being. To the patient he gains un-

derstanding and renders care to effect cure when possible and relief or comfort always. To the disease he directs his learned attention to gain understanding of its pathogenesis and susceptibility to treatment as well as its implications for subsequent cases. And to society he is obliged to contain, control, and prevent the effects of disease. He is also obliged to undertake research and to develop new skills to effect this end, and to contribute to the education of others in his profession of service.<sup>32(p74)</sup>

Physicians, whether military or civilian, have always struggled with these roles and the conflicts they introduce. Although pure Hippocratic medicine stresses the primacy of the duty of the physician to his individual patient, there have always been societal needs that supersede those of the patient, for example, reporting or quarantining communicable diseases. Therefore, this concept is not all that foreign to physicians.

### **Beyond the Metaphor of Conservation**

In the previous discussion of operational conservation and ecological conservation, needs within the context of a group or operation (and needs as they affect the ecological balance all around us, now and in the future) have been examined. But is there a further step to be taken, to understand how one can be both physician and soldier? The answer is yes. “Collective” ethics shows how this can be attained.

### **Collective Ethics and Conservation**

In matters beyond the individual patient-physician encounter, such as those involving medical practices affecting a group of patients, the physician-soldier is perhaps more cognizant of a need for some ethical grounding in what Pellegrino and Thomasma have termed institutional or collective ethics.<sup>32</sup> It may be at this level that individual physician-soldiers have perceptual concerns over the prevailing ethic of the Army in armed conflict—its request for conservation of fighting strength—towards what many physicians would view as an unmerited end. The individual physician-soldier who has not fully embraced the principle of conservation cannot understand how conserving the lives of wounded men in battle and contributing to the more effective use of manpower in pursuing an armed conflict may ultimately allow for the conservation of larger numbers of men. This conservation, whether of his own nation’s military units or those of the enemy, may bring to an expeditious end the immediate battle or the greater war. Should fur-



ther ends-based justification be necessary, the conservation of the society and its ideals for which it has asked him to serve may also bear merit. The physician-soldier, as a professional, may, nonetheless, be confounded by an apparent anomaly. This anomaly is that his means of service, healing medicine, has a place amidst all of the killing employed by the profession of arms as a means of obtaining a greater end for the society they both serve. To be sure, there is a need for a collective ethic—a prevailing principle—that allows for this apparent dissonance and validates the coexistence of the two professions in the same context (war) and their embodiment in the same individual.

There is, as yet, no fully developed ethical theory to define the obligations of a group of individuals (the team) making decisions which affect the well-being of another person, the patient.<sup>32(p245)</sup>

Physician-soldiers may look to the Army Medical Department (AMEDD) or the Army itself for evidence of such a collective ethic or for those values that comprise the ethos of the military surgeon. In reality, however, there has been no formal ethical theory specific to military physicians. It is the responsibility of the individual physician-soldier to reflect on how his personal values relate to being a physician in the military in war and peace. In particular, the physician-soldier needs to reflect on the concept of conservation of force and his response and responsibilities to it. The principle of conservation facilitates this “collective” ethic in the following manner:

- The wounded soldier is both an individual and a member of a larger unit.
- He was wounded while enacting his role with expectations of support and relationships of trust with his command, his comrades, and the healthcare system.
- When he seeks medical attention, he maintains these expectations of the healthcare team as much or more so than he does of the individual physician who cares for him.
- Hence, a collective ethic is in place in which moral obligations to the soldier in need are incurred by virtue of the fact that any specific individual (eg, physician, nurse, physician’s assistant, or medic) is a member of the group (the same greater group, in fact, the Army) as the patient.

The moral decision of an individual healthcare team member, then, never occurs in isolation. It should

occur in concert with a greater, prevailing group ethic.

Further delineation of this idea may be drawn by comparing the military healthcare system with a civilian community hospital. The community hospital, by its very existence within a community, declares its availability of resources and mission to serve those in need. Some may come to see their private physician, but others need urgent or emergent care that they expect the institution to provide, even when they do not have a personal physician. The wounded soldier-patient does not have, or seek, a personal physician. He has urgent needs. He expects the military healthcare system to meet those needs in the same way that the community hospital does. In this way that system acts to assume those obligations for care that a personal physician would and that are consistent with the expressed (declared) purposes of the larger institution (the AMEDD motto “to conserve fighting strength”).

The moral obligations of the physician member of this healthcare team are substantially different than were he in community or private practice engaging in a personal encounter with his patient. These differences are necessarily brought about by the austere environment of war, a superseding or collective group ethic, and the impersonal level of relationship between any team member and the patient. These differences, however, do not obviate the need for the team as well as the physician to live up to their moral obligations, just as the private physician and the community hospital both fulfill their obligations to the patient and the society at large. A prevailing, and previously disclosed, principle of conservation facilitates the meeting of these obligations without undue tension for the physician-soldier: The healthcare team is directed to meet certain specified needs of the soldier-patient and his greater institution, the Army. It is composed of various professional and paraprofessional persons held together by a common purpose—to heal the wounded and care for the dying. It operates under the principle of conservation (which is at the same time patient-centered, physician-directed, and institution-preserving), meeting the needs of the immediate patient, the greater unit (the Army), and the institution (society) that has placed him in harms way. Collective action, the unifying concept of all teams, infers an acting together of many individual team members. These actions follow decisions made, in advance and at-the-moment, by a dynamic process of team member interaction determined to enact a foregone end—in the case of battlefield medicine, healing, caring, and ultimately

the conservation of force.

Acting both individually and collectively, personal skills, expertise, and competence effect the desired end. Each team member is responsible for his actions. But the team itself “shares in this responsibility since it must assure that these actions are well carried out by team members to whom they are assigned and whether a particular person should have been chosen—or rather, entrusted—with the task of carrying it out.”<sup>32(p257)</sup> Hence, the usual moral obligations on the part of the individual physician are operative. But so, too, are the potentially complicating moral obligations of the team as a team per se. This compels the individual team members to not only attend to their own ethics of conduct, professional integrity, and action but to seek a well-grounded (principled) ethic of team action under which they can reasonably and effectively operate.

Modern medicine today is practiced across healthcare disciplines and through complex and intricate relationships among generalists, specialists, institutions, and patients. In its practice, an effective “relationship” is wielded between the patient and his physician, a healthcare team, and an institution (hospital), all of whom have obligations “to provide competent, responsive, and personal care and to fulfill that obligation by virtue of the competence of those”<sup>32(p258)</sup> employed. So it is for the physician-soldier in battlefield medicine who acts out of personal, professional, institutional, and moral obligation to render effective care for the wounded.

In order that the principle of conservation be employed with reason and result, it must ultimately be patient-centered and physician-directed. Military units are typically directed collectively to achieve their mission, the objective of which is greater than the well-being of any single individual. Healthcare teams, by contrast, must ultimately act individually toward specific patients. But it is the recognized and expected role of the military healthcare team to act in this way in order to ultimately “conserve the fighting strength.” For conservation to be employed toward the care of the wounded by anyone other than a physician, specifically a logistical or tactical commander, is to risk the inhumane and uncaring utilitarian view, as recounted by one observer, of General George Patton in 1943:

If you have two wounded soldiers—one with a gunshot wound of the lung, and the other with an arm or leg blown off, you save the s.o.b. with the lung wound and let the g.d.s.o.b. with the ampu-

tated arm or leg go to hell. He is no g.d. use to us anymore!<sup>33(p12)</sup>

It is now time to return to the fundamental question of this chapter: How does being a physician-soldier as a member of a moral profession employ the principle of conservation to effect the military-political imperative?

### ***Conservation and the New Military-Political Imperative***

Conservation of force can be seen as an essential component of the new military-political imperative—achieve the mission with the lowest possible casualty rate. The individual soldier is viewed as the most precious resource held by his command. Current social pressures and media attention demand that casualty burden be minimized in conflicts today. To employ the principle of conservation in a patient-centered sense effects a minimum of casualties. When casualties are inevitably encountered, patient-centered physician-directed conservation sees to their treatment with optimal results.

Conservation of force allows for the successful completion of the military task that would otherwise not be politically acceptable. It must see to the emplacement of all necessary resources with concerted effort and intent to render expedient and efficient care to the wounded and dying. Hence, it requires thorough preparation of essential personnel, the readiness of their equipment through preventive maintenance, and the minimization of waste. While training for, planning, and executing the mission of the AMEDD, the physician-soldier acts to conserve the precious resources at his disposal.

Ethically, the overriding duty of the professional is to foresee and forestall the risks to which his superior knowledge makes him privy.<sup>34(p338)</sup>

These three phases of the healthcare team’s activity (training, planning, and execution), directed by the physician-soldier and guided by the principle of conservation, in many ways parallel those of any successful military operation.<sup>35</sup>

**Training.** The physician-soldier will become involved in training medical personnel at all levels—in effect expanding the reach of the healthcare team to the level of the soldiers providing “buddy-aid” or acting as combat life-savers. Physician Assistants’ and skilled corpsmen’s specialized talents are developed only with appropriate training and experience. To allow the greatest conservation of life and

materiel, these “physician-extendors” need the guidance of physicians. Depending upon the size of the medical unit, education and training may also need to be provided to nurses and junior physicians.

**Planning.** As planning is essential to the military commander to effect a successful military operation, so, too, is it essential for the physician-soldier in order to effect his mission—the conservation of fighting strength. Successful planning must be continuous in order to adapt to the changing demands of any system, in peacetime or battle. Certainly the many unknowns and variables that affect the flow of battle can test even the best medical treatment and evacuation plans. But the plan of health service support for battle serves as the framework—the common understanding—upon which all the changes are made. Without a vision of what is to come and how it will be managed, the physician-soldier leading the health service support team cannot hope for success.

In planning for each contingency, the physician-soldier employs the principle of conservation. His preparation, combined with training in preplanned responses, allows him to offer to his commander the best possible health service support for the military operation, be it a limited engagement or an extended conflict. He ensures the *minimizing of waste*, perhaps the most readily apparent application of the principle of conservation. Medical supplies, personnel, or other resources (such as chemical decontamination elements and water) that are used for one individual clearly are not available to be used for another. Evacuation assets, ground or air ambulances, holding area and treatment beds, and even in-theater hospital beds are all limited in availability and must be effectively managed. Evacuation routes may be long and return times significant, thereby requiring judicious utilization by the sending medical unit. Other complexities that demand a mind toward conservation include limited communication, resupply, and maintenance capabilities at various echelons of health service support. The threat of the health service support unit coming under fire will similarly require the attention of the physician-soldier who is looking out for the patients under his charge as well as the integrity of the medical unit.

The greatest and most precious resource of the US fighting force is the individual soldier. Physician-soldiers and the command must take measures that allow the conservation of soldiers’ physical and mental health, their lives, and their fighting effectiveness. The most apparent acts of conservation, then, would include those things that would avoid

any wasteful or neglectful expenditure of human lives, that is, avoidance of excessive casualty rates. The soldier whose life is preserved in battle joins others who are, in effect, conserved toward an end beyond the present conflict—that of returning home to the society that has requested their service. The obligation of the physician-soldier is simultaneously to the individual life of the wounded soldier, the unit in which he serves, and the society for whom he and the soldier-patient both serve.

These obligations may, or may not, be apparent to all parties involved—the physician-soldier, the soldier-patient, the command, and the society. They are certainly difficult to meet without the proper education, training, and planning. Each party should know the role of the other and the end to which they exist together. And the recognition of a guiding principle—the principle of conservation—is necessary. This principle obligates the physician-soldier toward his patients, his unit, and the greater society embodied in the fighting force he is supporting. His capabilities as a clinician, health service support planner, and advisor to unit commanders (knowledgeable in field expedient means of mass casualty triage and care, logistics, and utilization of medical intelligence) all must be addressed prior to deployment, to allow him to efficiently and effectively “conserve fighting strength.”

The second activity in which the physician-soldier employs the principle of conservation and involves himself during both training and planning phases is the *preservation* of human resources available to the command. Preservation presumes an extant integrity, and perhaps this, too, should be recognized as a responsibility of the physician-soldier: to see to the physical, mental, and emotional readiness of soldiers. The predeployment health of soldiers, their participation in regular physical training, and mental preparedness all may be viewed as activities that can be influenced by physician-soldiers with troops in garrison toward the end of preserving an effective (well-fit, well-trained, and well-equipped) fighting force. The idea that preparedness contributes to readiness for combat in such a way as to preserve and conserve fighting strength has been summarized in this oft-quoted training adage: “The more you sweat in training the less you bleed in battle.”

Finally, the third activity, that of the *maintenance* of resources, both men and materiel, available for the provision of health service support to the command, is a responsibility best met by the physician-soldier. He must allocate scarce resources, see to the continuing education and readiness of combat med-

ics, and ensure the operational integrity of field medical equipment. Although perhaps at odds with the typical Western Hippocratic advocacy for the individual patient when seeking resources for patient care,<sup>36</sup> the broader considerations of the physician-soldier in resource allocation reflect an additional commitment to a greater body than the individual patient (soldier). That greater body is the military unit (be it company, battalion, brigade, division, or corps), that is, the "fighting strength." Indeed failure to recognize and respond to this commitment may well jeopardize any and every other activity that the physician-soldier in combat would choose to pursue on behalf of any individual patient. The shift in emphasis from the individual soldier-patient to the collective unit (or army) is in keeping with the deemphasis (some would argue deletion) of individual autonomy that is part of being a soldier belonging to a uniformed military force. Thus, the uniqueness of the individual is lost to the uniformity of the whole force. Individual autonomy is sacrificed to a larger military unit for the purpose of conducting a military operation that requires unit cohesion and singleness of purpose rather than competing ideas, plans, and means of execution.

In these three ways—(1) the minimizing of waste, (2) the preservation of life, and (3) the maintenance of all resources available to him, both materiel and human in nature—the physician-soldier employs the principle of conservation. He prepares himself and those who work with him in the health service support units to effectively execute their mission of conserving the fighting strength.

**Execution.** Perhaps the most difficult role for the physician-soldier to adapt to is the execution of his mission in the crucible of battle. It is here that the profession of arms and the profession of medicine truly are joined. It is here, at first blush, that the irony of the former profession's means demands and validates the means of the latter to effect the same mutually desired end for a society that both serve and represent.

The execution of a patient-centered and physician-directed principle of conservation requires an adjustment on the part of many physicians. Although not strictly at odds with the goals of medicine and the provision of care to patients in a global context, the provision of care in a combat environment makes demands upon the physician-soldier that are strange to him should he be accustomed to practicing medicine in the modern high-tech arena of the United States. In combat, the physician must accept that chaos is both normal and inevitable. He must grapple with the realities of limited resources,

skewed triage categories, and the rarity of mass-casualty scenarios relative to the need for austerity in providing a medical response.<sup>37</sup> Indeed, accounts of casualty management in previously reported conflicts suggest that it is the appropriate stabilization at first echelon facilities by medics, aidmen, and corpsmen; scrupulous use of evacuation assets; and a rethinking of specific health service support unit capabilities that will contribute most to effective conservation of the fighting strength. The widely proffered line that the mission of the health services support team in military operations is solely to return as many soldiers to the front as possible has become outdated. It must be reexamined in light of current medical and surgical capabilities, societal expectations, and even the realities of morbidity data from recent conflicts. Koehler notes that greater than 80% of patients requiring second echelon (eg, surgical) care are not returned to duty, but are stabilized, treated, and then evacuated.<sup>38</sup>

The final reality that the physician-soldier must deal with, which is often found to be most difficult, is the frequency of austere conditions in which he must try to enact as much good as possible. Indeed both the immediate intervention and expected outcome (eg, morbidity and mortality) must often be compromised relative to either the standard of peacetime practice to which he is accustomed or the changing environment in which he finds himself. The effective level of care that he is able to provide may change depending upon numerous variables: duration of the conflict, supplies, casualty load, exhaustion, or even his own unit's security.<sup>37,39</sup> For example, a well-staffed and supplied, relatively sophisticated surgical hospital may function almost on par with a civilian community hospital (no austere constraints) early in a conflict. Casualty burden may be low, supplies maintained, and staff well-rested. But given a prolonged conflict, increased casualty burden, protracted or congested evacuation chain, and diminishing supplies, the level of care may of necessity be diminished. This would reflect a change in austerity constraints and require a phenomenal adjustment on the part of physicians operating under such circumstances. The capacity to do good and the expected outcome of most interventions in such a scenario would obviously change. This can be a considerable drain on an individual physician-soldier or his health service support unit as a whole. The prevailing principle of conservation, while providing direction toward a desired end, cannot obviate the moral angst of such a predicament. But should the physician-soldier never have contemplated these possibilities and fully explored the application of patient-centered, physician-directed



conservation; should he never have trained, planned, and implemented the health service support mission guided by this principle, as broadly addressed here, he might well be less equipped to deal with the realities of war and its impact on his capabilities in context. This, then, would be of even greater detriment, because the effective and efficient use of the physician-soldier toward every level of obligation (patient, unit or team, army or command, and even society) would diminish and conservation in every facet fail.

Executing the mission of health service support under the principle of conservation, then, facilitates the physician-soldier:

- dealing with the austere constraints of battlefield medicine and surgery that affect both his capacity for intervention and his expected outcomes;
- balancing individual patient outcomes with unit, and army, mission, and societal expectations;
- managing a changing resource supply and distribution situation amidst conflict;
- triaging effectively to optimize outcomes; and
- giving some attention to the potential of “caring too much” and expecting too much of himself given the context in which he operates (a moral balm).

The physician-soldier employing the principle of conservation in the mission of health service support is consistent with its use in the combat arms. It is likewise consistent with modern metaphors used in ethical analysis, as well as to frame the discussion of certain areas of healthcare. Given the collective, or team, nature of health service support in providing care for combat arms units that represent the larger institution (the Army), it requires attention not only from the individual professional (eg, physician-soldier) who must act out of integrity, moral discernment, and courage, but also the collective team (health service support unit) and larger institution, upon whom it is morally incumbent to disclose its operative philosophy to every constituent (the soldier who may also be a future patient).

The paradigm of conservation, in which the end determinant has been troop (fighting) strength, may now need reconsideration as minimal casualty burden and lesser health service support, become both an operational concern for smaller units engaged in widely dispersed areas of operation and a societal (political) concern for those placing military units in harm’s way. Conservation may require a greater assessment of overall resource allocation (both medical personnel and materiel) and even become more individually (patient) focused for the physician-soldier.<sup>40</sup>

## CONCLUSION

There is no ethical conflict in being both physician and soldier. The *ethos* of the two professions are not contradictory. In addition to the common focus on the conservation of force, the two professions, as professions, place a moral demand upon the physician-soldier.

Professions are separated from society by their specialized knowledge and the historical perspective of their professional role in society. The profession of arms, perhaps better than any other group, understands the consequences to individuals and to society of the use of violence to achieve national political goals. The profession of medicine likely understands the role of health and the consequences of the means to achieve it better than any other group. Professions have the historical reference to see their role in the context of history, not just in the immediate case. This knowledge and historical perspective gives to the profession the ability and the responsibility to give back to the society its unique view of the moral consequences of the goals of the profession as set by society. Both as members of their society and as professionals, physicians and

soldiers have the responsibility to engage in the debates about what society seeks of those who serve it. They must do so within the constraints of their professional relationship with society. The profession of arms is not the only profession that must act to fulfill Huntington’s view of the professional roles as counselor, spokesperson, and executor. As Parrish notes,

[t]he question is, “What good is this war?” ...Are the consequences of not fighting a war worse than fighting one...The trouble is that the people who decide to fight wars know the least about what they are really all about. Somebody has to tell them...Somebody has to tell them what this war is all about.<sup>1(p9)</sup>

The question of being both physician and soldier ultimately is not a question about the *ethos* of the two professions. Rather the question is about the *ethos* of the society and what the societies can order members of the professions to do, be they warriors or physicians. The responsibility for answering that question falls to both the society and the professionals who serve it.

## REFERENCES

1. Parrish JA. *12, 20, & 5: A Doctor's Year in Vietnam*. New York: Doubleday Publishing; 1972.
2. Simpson JA, Weiner ESC. *The Oxford English Dictionary*. Vol 12. 2nd ed. Oxford: Oxford University Press; 1989.
3. Percival T. *Medical Ethics; or a Code of Institutes and Precepts, Adapted to the Professional Conduct of Physicians and Surgeons*. Manchester, England: S Russell; 1803.
4. Department of Defense. *Uniform Code of Military Justice*. Washington, DC: DoD; 2000.
5. Pope John XXIII. *Pacem in Terris* [papal encyclical]. Rome: The Vatican; 11 April 1963. Available at: [http://www.vatican.va/holy\\_father/john\\_xxiii/encyclicals/documents/hf\\_j-xxiii\\_enc\\_11041963\\_pacem\\_en.html](http://www.vatican.va/holy_father/john_xxiii/encyclicals/documents/hf_j-xxiii_enc_11041963_pacem_en.html). Accessed 9 October 2001.
6. Sigerist HE. *A History of Medicine*. Vol 1. New York: Oxford University Press; 1951.
7. Veatch RM. *Medical Ethics*. 2nd ed. Boston: Jones & Bartlett Publishers; 1997: 6–8.
8. Edelstein L. *The Hippocratic Oath: Text, Translation and Interpretation*. In: *Bulletin of the History of Medicine*, Supplement No. 1. Sigerist HE, ed. Baltimore, Md: The Johns Hopkins Press; 1943.
9. World Medical Association. Declaration of Geneva (1948) Physician's Oath. Adopted by the General Assembly of the World Medical Association, Geneva, Switzerland, September 1948 and amended by the 22nd World Medical Assembly, Sydney, Australia, August 1968. Available at: <http://www.cirp.org/library/ethics/geneva/>. Accessed 22 October 2001.
10. World Medical Association. International Code of Medical Ethics. Adopted by the 3rd General Assembly of the World Medical Association, London, England, October 1949 and amended by the 22nd World Medical Assembly, Sydney, Australia, August 1968, and then the 35th World Medical Assembly, Venice, Italy, October 1983. Available at: [http://www.wma.net/e/policy/17-a\\_e.html](http://www.wma.net/e/policy/17-a_e.html). Accessed 22 October 2001.
11. American Medical Association. Principles of Medical Ethics. 1957. Available at: [http://www.ama-assn.org/ama/upload/mm/369/1957\\_principles.pdf](http://www.ama-assn.org/ama/upload/mm/369/1957_principles.pdf). Accessed 22 October 2001.
12. American Medical Association. Principles of Medical Ethics, June 2001. Available at: <http://www.ama-assn.org/ama/pub/category/2512.html>. Accessed 9 October 2001.
13. Statement by Dr. Benjamin Rush. In: *On the Duties of Patient to Their Physicians*. As quoted in: Faden RR, Beauchamp TL. *A History and Theory of Informed Consent*. New York: Oxford Press; 1986.
14. Thomas L. *The Newest Science*. New York: Bantam Books; 1984.
15. Hippocrates. *Precepts*. In: *Great Books of the Western World*. Vol. 10. New York: Encyclopedia Britannica; 1952.
16. Peabody FW. The care of the patient [a monograph]. *JAMA*. 1927;88(March 19):1–88.
17. Radetsky M. Quoted by: Dan BB, Young RK, eds. *A Piece of My Mind*. New York: Ballantine Books; 1988.
18. Dyer G. *War*. New York: Crown; 1985.
19. Jones A. *The Art of War in the Western World*. New York: Oxford; 1987: 253–255.
20. Huntington SP. The military mind: Conservative realism of the professional military ethic. In: *War, Morality and the Military Profession*. Boulder, Colo: Westview Press; 1986.
21. Code of Conduct for Members of the Armed Forces of the United States. 53 Fed Register 10355 (1988).

22. Norman M. Peace and war. Washington, DC: *Washington Post Magazine*. 17 February 1991:w21–w23.
23. Gray JG. *The Warriors, Reflections on Men in Battle*. 2nd ed. New York: Perennial Library; 1970.
24. McDonald JR. *Platoon Leader*. New York: Bantam Books; 1986.
25. From a letter left on the Vietnam Memorial. Cited in: Palmer L. *Shrapnel in the Heart: Letters and Remembrances From the Vietnam Veterans Memorial*. New York: Random House; 1987.
26. Huntington SP. Officership as a profession. In: *War, Morality and the Military Profession*. Boulder, Colo: Westview Press; 1986.
27. Paul Fussell, infantry officer, World War II. Cited in: Dwyer G. *War*. New York: Crown; 1985.
28. Richard Pearl, Lieutenant Colonel, United States Army, Cobra gunship pilot, Vietnam. Personal Communication, 3 January 1986.
29. Eikenberry KW. Casualty limitation and military doctrine. *Army*. February 1995: 16, 18.
30. Kidder RM. *How Good People Make Tough Choices*. New York; William Morrow & Co, Inc; 1995: 202–207.
31. Annas GJ. Reframing the debate on health care reform by replacing our metaphors. *N Engl J Med*. 1995;332(11):744–747.
32. Pellegrino ED, Thomasma DC. *A Philosophical Basis of Medical Practice*. New York: Oxford University Press; 1981.
33. Churchill ED. *Surgeon to Soldiers. Diary and Records of the Surgical Consultant Allied Force Headquarters, World War II*. Quoted by: Smith AM. The ethos of the military physician. *Pharos*. 1993;56(4):11–14.
34. Vastyan EA. Warriors in white: Some questions about the nature and mission of military medicine. *Tex Rep Biol Med*. 1974;32(1):327–342.
35. Carter BS. The military physician and conservation of force. *Mil Med*. 1993;158(6):374–375.
36. Levinsky NG. The doctor's master. *N Engl J Med*. 1984;311(24):1573–1575.
37. Dressler DP, Hozid JL. Austere military medical care: A graded response. *Mil Med*. 1994;159(3):196–201.
38. Koehler RH, Smith RS, Bacaner T. Triage of American combat casualties: The need for change. *Mil Med*. 1994;159(8):541–547.
39. Smith AM. The ethos of the military physician. *Pharos*. 1993;56(4):11–14.
40. Jeffer EK. Medical triage in the post-Cold War era. *Mil Med*. 1994;159(5):389–391.





# Chapter 11

## PHYSICIAN-SOLDIER: A MORAL DILEMMA?

VICTOR W. SIDEL, MD<sup>\*</sup>; AND BARRY S. LEVY, MD, MPH<sup>†</sup>

---

### INTRODUCTION

#### FIVE ETHICAL DILEMMAS IN THE ROLE OF “PHYSICIAN-SOLDIER”

Subordinating the Best Interests of the Patient

Overriding Patients’ Wishes

Failing to Provide Care

Blurring Combatant and Noncombatant Roles

Preventing Physicians From Acting as Moral Agents Within the Military

#### ENHANCING PHYSICIANS’ ABILITY TO SERVE AS MORAL AGENTS

Restructuring Medical Service in the Military

Selecting Alternatives to Military Service

### CONCLUSION

#### POINT/COUNTERPOINT—A RESPONSE TO DRS. SIDEL AND LEVY.

EDMUND G. HOWE, MD, JD<sup>‡</sup>

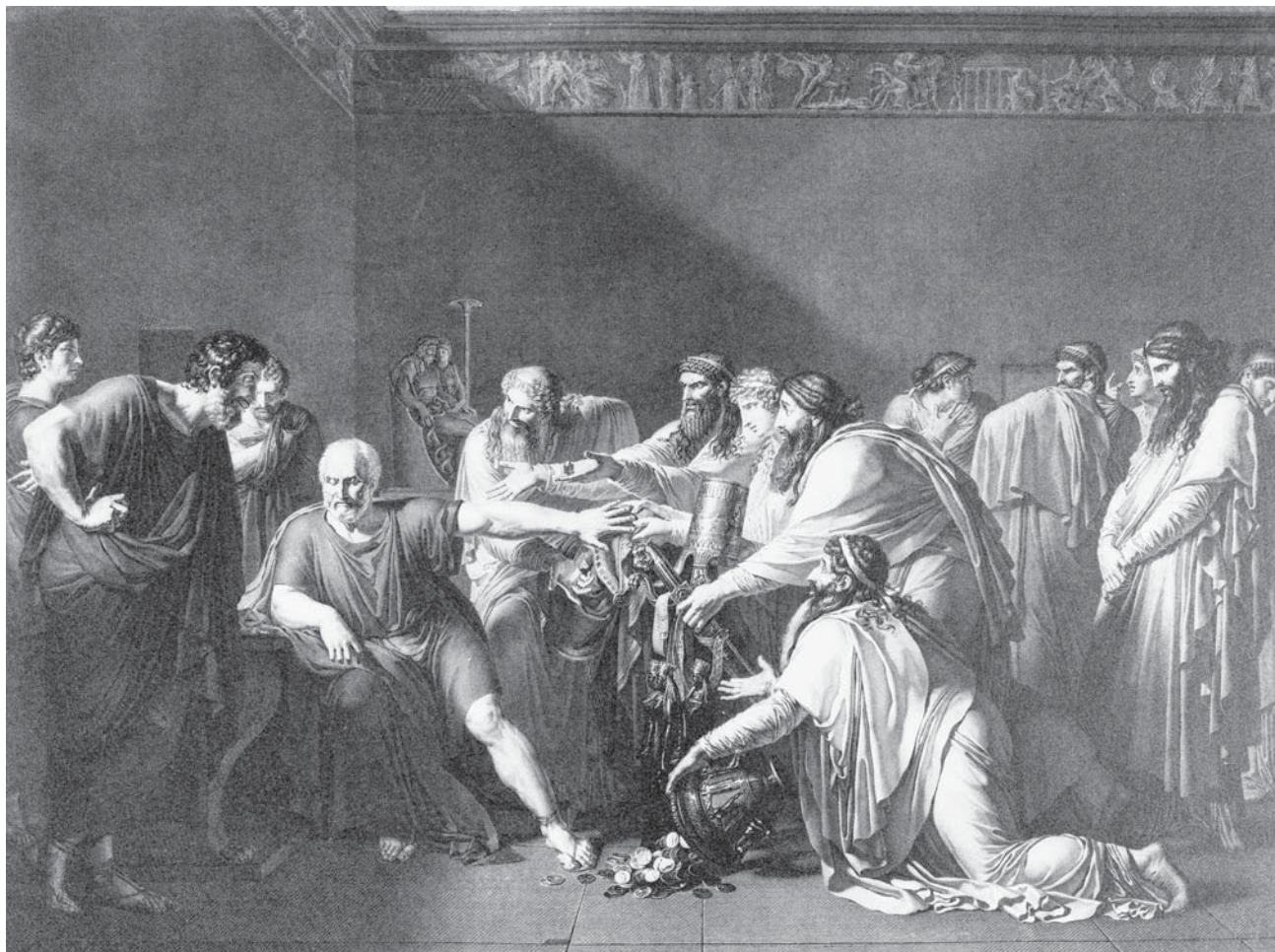
#### THE MORAL OBLIGATION OF UNITED STATES MILITARY MEDICAL SERVICE. DOMINICK R. RASCONA, MD, FACP, FCCP<sup>§</sup>

<sup>\*</sup>*Distinguished University Professor of Social Medicine, Montefiore Medical Center, Albert Einstein College of Medicine, 111 East 210th Street, Bronx, New York 10467; Adjunct Professor of Public Health, Weill Medical College of Cornell University, New York; formerly, President, American Public Health Association; President, Physicians for Social Responsibility; and President, International Physicians for the Prevention of Nuclear War*

<sup>†</sup>*Adjunct Professor of Community Health, Tufts University School of Medicine, 20 North Main Street, #200, Post Office Box 1230, Sherborn, Massachusetts 01770; formerly, President, American Public Health Association; and Executive Director, International Physicians for the Prevention of Nuclear War*

<sup>‡</sup>*Formerly Major, Medical Corps, United States Army; currently, Director, Programs in Ethics, Professor of Psychiatry, and Associate Professor of Medicine, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, Maryland 20814; and Chair, Committee of Department of Defense Ethics Consultants to the Surgeons General*

<sup>§</sup>*Commander, Medical Corps, United States Navy; currently, Assistant Director, Critical Care, Naval Medical Center, Portsmouth, Virginia; formerly, General Medical Officer, USS Iowa*



Anne-Louis Girodet de Roucy

*Hippocrate refusant les présents d'Artaxerxes*  
[Hippocrates refuses the gifts of Artaxerxes]

1792

This painting was used as the model for a commemorative stone donated in 1855 by the American Medical Association for permanent placement in the Washington Monument being built in the District of Columbia. The stone, given in "profound reverence to President Washington,"<sup>1</sup> bears the inscription "Vincit Amor Patriae" (Love of Country Prevails). It depicts the emissaries of Artaxerxes, the king of Persia, offering gifts to Hippocrates to induce him to provide services to Persian soldiers suffering from plague. Hippocrates is said to have responded: "Tell your master I am rich enough; honor will not permit me to succor the enemies of Greece."<sup>2(p373)</sup> The painting illustrates the tension between dedication by a physician to patriotism that may cause him to refuse service to the sick and dedication to medical ethics that is generally held to require that medical care be offered to all who require it. Sources: (1) Stacey J. The cover. *JAMA*. 1988;260(28):448. (2) Smith WD, ed. *Hippocrates: Pseudoepigraphic Writings*. New York: EJ Brill; 1990.

Image reproduced with permission from Bettmann/CORBIS.

**EDITORS' NOTE:** The following chapter is controversial. The field of ethics is a discipline of logical and philosophical analysis that requires debate. For true debate to occur, opposing viewpoints must be advanced forcefully and analyzed rigorously. The editors recognized that examining opposing viewpoints could challenge even our most basic presuppositions and that these challenges would cause discomfort. Were we not to include the challenges, we would fail to generate the required thoughtful analysis and debate.

This chapter challenges the very morality of physicians serving in the armed forces. The editors selected Drs. Sidel and Levy to write this chapter because they are known for their strongly held opposition to physicians serving as medical officers in the military. We asked them to advance their strongest arguments and their most vigorous challenges. They have done so. Their arguments reflect a view of military medicine that is relatively prevalent among civilian physicians and civilian medical ethicists and therefore we must understand their position. Drs. Sidel and Levy agreed to write this chapter, and to make their best argument, for exactly that purpose—to generate controversy and initiate a critical examination of the issues physicians continue to face in military service to their country. They have welcomed the editorial process and have eagerly debated their arguments. This informal dialogue has been very instructive for both parties to the debate.

The Editor-in-Chief recognized that publishing some of the dialogue would be helpful to our readers in beginning their own analysis of the opposing viewpoints. Dr. Howe, as an ethicist, was invited to respond directly to the ethical arguments Drs. Sidel and Levy advance. His response is included as a rebuttal immediately following their text. Dr. Rascona, a physician in the Navy, was invited to respond from the perspective of a doctor in uniform. We feel that his essay merits inclusion because it speaks to the motivation of many medical officers, and raises issues that are not addressed by either Drs. Sidel and Levy or the rebuttal by Dr. Howe. It is inserted immediately following Dr. Howe's rebuttal. This three-pronged approach to the subject, although not exhaustive of all possible views, at least frames the argument for further discussion.

Although the editors do not agree with the conclusions Drs. Sidel and Levy reach, we do feel that there is great value in understanding their position. By exploring their argument we are forced to examine our own positions and our reasons for holding them. By reexamining these positions while considering their challenges, we achieve a greater clarity of the virtue of our conclusion that physicians *must* continue to serve in the military. In fact, as Drs. Howe and Rascona conclude, to do otherwise would be unethical.

## INTRODUCTION

The essence of ethical behavior is the ability to make an appropriate choice between possible courses of action. For a physician engaged in the treatment of a patient, the ethical choice is usually clear: The action should serve the best interests of the patient as both the physician and the patient define those interests. In the infrequent instances when the patient's and physician's perceptions of the best interests of the patient differ, it is usually expected that the physician will act as the patient wishes or, if the physician for some reason cannot do so, that the physician will refer the patient to another physician.

In some circumstances in which the physician has obligations to others in addition to obligations to the patient, a situation known as "mixed agency," the ethical choice may be more complex and thus more difficult. There are many examples of mixed agency in the practice of civilian medicine. Some of

these are brought about by the legal requirement to report certain medical situations to the appropriate agencies, such as reporting a case of hepatitis or syphilis to public health authorities or a gunshot wound to law enforcement authorities. There are also employer requirements imposed on physicians practicing occupational medicine or prison medicine, as well as requirements imposed by managed care organizations on physicians. Clinical research may also lead to mixed agency ethical conflicts. In all of these situations of mixed agency ethical conflict in civilian practice, however, there are usually ways in which physicians can resolve them. If necessary, physicians can withdraw from such situations by referring patients to other physicians or resigning positions that create the conflict situations.

The overriding ethical principles of medical practice in our view are "concern for the welfare of the patient" and "primarily do no harm." As we un-



derstand them, the overriding principles of military service are “concern for the effective function of the fighting force” and “obedience to the command structure.” Although there may be rare exceptions to these principles, they have been the fundamental bases of medical practice and military service over the centuries. In our view, the ethical principles of medicine make medical practice under military control fundamentally dysfunctional and unethical. Medical practice under these conditions of military control may be harmful to the personnel being cared for, to the overall mission of the armed forces, and to the practice of medicine—not only in the military service but in other settings as well.

We believe the role of the “physician-soldier” to be an inherent moral impossibility because the military

physician, in an environment of military control, is faced with difficult problems of mixed agency that include obligations to the “fighting strength” and, more broadly, to “national security.” Furthermore, these physicians are assigned to specific duties and committed for a fixed period to military service, both of which preclude options that civilian physicians have for resolving role conflict and the dilemmas inherent in those situations. We realize that soldiers have a need and a right to medical care; we further acknowledge that the military believes it is the best provider of this care. However, we assert that the military cannot provide the best medical care for its soldiers. This, in our view, is because the ethical dilemmas associated with a system of medical care under military control preclude the ethical provision of that care.

## **FIVE ETHICAL DILEMMAS IN THE ROLE OF “PHYSICIAN-SOLDIER”**

In the sections that follow, we describe five ethical dilemmas in the role of “physician-soldier.” Some of these dilemmas may occur in the context of all-out war in which commanders believe every resource must be marshaled literally to survive the day. Such an instance may have occurred during the opening days of the 1973 Arab-Israeli war when Syrian tanks were moving down the hills, headed for Israeli towns. However, we feel that (a) such a scenario is extremely unlikely for a country such as the United States, and (b) to subordinate the rights of patients and the responsibilities of physicians to prepare for what we feel is such an improbable event is unwise and unnecessary. The five ethical dilemmas that we will discuss, however, arise because military commanders may not distinguish between what is realistically necessary and what might be necessary in an unlikely scenario.

### **Subordinating the Best Interests of the Patient**

There are a variety of ways in which the military directly, as well as indirectly, subordinates the medical best interests of its soldiers. Surely the most obvious is that of setting medical priorities for military purposes or performing medical research on soldiers without their true informed consent. But violating patient confidentiality, as well as failing to keep adequate medical records, can also have long-term consequences for individual soldiers.

#### ***Setting Medical Priorities for Military Purposes***

The primary role of the military health professional is expressed in the motto of the US Army Medical Department: “To conserve the fighting

strength.”<sup>1</sup> This motto is usually understood as requiring adherence to generally accepted medical goals, such as emphasis on health maintenance and prevention of disease or injury. However, we feel that the military aspects of the motto may at times subtly, or not so subtly, override the medical aspects: Military health professionals may be required to accept different priorities than do their civilian colleagues. For example, a faculty member of the Academy of Health Sciences at Fort Sam Houston in 1988 cited as “the clear objective of all health service support operations” the goal stated in 1866 by a veteran of the Army of the Potomac in the US Civil War:

[to] strengthen the hands of the commanding general by keeping his Army in the most vigorous health, thus rendering it, in the highest degree, efficient for enduring fatigue and privation [sic], and for fighting.<sup>2(p145)</sup>

Attention to military needs and to patient-centered care may in most instances involve no ethical conflict. One might assume that soldiers who will be sent to fight must be soldiers who are healthy, and therefore the soldier is not disadvantaged by a system that seeks to maintain him as a member of a healthy and thus capable fighting force. The tasks of providing service to respond to patient’s needs and to respond to military needs and orders are usually compatible. But when they are not, it is our impression that the military physician is usually expected to give higher priority to service to the military. When these situations arise, we believe that the military sometimes subordinates the best interests of the patient to the good of the fighting



force or the completion of the mission.

An example of ethical conflict between military needs and patient-centered care arose in the use of penicillin for US military personnel in North Africa during World War II, a time when limited amounts of penicillin were available.<sup>3</sup> The ethical dilemma was clear: Should the limited amount of penicillin be used for treatment of serious chest wounds or instead for treatment of disease, including venereal disease? The dilemma was often resolved in favor of treatment of disease that would respond rapidly and effectively to penicillin rather than using the penicillin for soldiers with infection of their serious wounds because that choice would permit earlier return of a soldier to duty.

Analyses of articles published in *Military Medicine* concerning military medical triage describe how medical priorities are set for military purposes. We are concerned that military physicians when making these decisions may put the needs of the military inappropriately before the needs of the patient. Military physicians, when writing about triage, generally define a group of casualties termed "expectant," who are to be "made comfortable." Other casualties, termed "the walking wounded" by Swan and Swan,<sup>4</sup> "can have their wounds dressed very quickly, their weapons returned to them, and their paths redirected forward rather than rearward."<sup>4(p448)</sup> "Triage, of course," they state, "requires difficult decisions and poses ethical and moral dilemmas for the uninitiated."<sup>4(p448)</sup> Janousek and colleagues define those in the category "expectant" as "patients with injuries requiring extensive treatment that exceeds the medical resources available."<sup>5(p333)</sup> These analyses discuss the dilemmas of triage but do not go on to suggest that limited medical resources be allocated on the basis of urgency of medical need rather than on the basis of military priorities. (Nor do these analyses suggest that physicians ought to be able to use their own discretion when deciding who should be treated within the guidelines of triage, and who should be treated according to the physician's own sense of what is medically and ethically right for this particular patient.) This issue of setting medical priorities according to military purposes also raises questions about using military discipline to override patients' wishes in treating soldiers "for their own good," covered in the next section.

### ***Performing Medical Research on Soldiers Without Informed Consent***

Another example of treating soldiers as soldiers, rather than as patients (or indeed as human beings

possessing what are usually regarded as human rights), is that of using them as subjects in medical research for military purposes without their free and informed consent. The Nuremberg Code, as well as accepted practice in the United States, requires the free and informed consent of human subjects. Because they cannot simply "quit their jobs" or "file a grievance" with a union, government agency, or professional organization, military personnel may not believe that they can truly refuse to participate in these experiments. They may feel more like a "captive audience" than like "volunteers." Furthermore, they may not be fully informed of the risks for a variety of reasons, including national security. Examples from the more than 50 years since the Nuremberg Code was promulgated include US troops required to be present at atmospheric tests of nuclear weapons in the later 1940s and 1950s,<sup>6-8</sup> and troops who participated in chemical weapons experiments in the 1950s and 1960s.<sup>9</sup> (See Chapter 17, *The Cold War and Beyond: Covert and Deceptive American Medical Experimentation*, and Chapter 19, *The Human Volunteer in Military Biomedical Research*, for further discussion of various research programs during this period.)

In 1990, following Iraq's invasion of Kuwait, the Department of Defense (DoD) requested a waiver that would permit military use of investigational drugs and vaccines without informed consent. The Food and Drug Administration (FDA) granted the request and issued a new general regulation, Rule 23(d), which permits drug-by-drug waiver of informed consent by the DoD. Pyridostigmine bromide (PB), a drug approved by the FDA for treatment of myasthenia gravis, was used under such a waiver as a "pretreatment" for the effects of nerve agents. It is our view that the absence of informed consent for use of a drug for purposes unapproved by the FDA is unethical except under extraordinary circumstances, which we feel were not present in this case. Furthermore, in our view there was inadequate evidence that PB would have been effective if an agent had been used.<sup>10-13</sup>

Additional threats to free and informed consent were posed by the regulations promulgated in 1996 by the Food and Drug Administration, and the Office for Protection from Research Risks, Department of Health and Human Services. These regulations permitted the waiver of informed consent from subjects who lack the capacity to give informed consent for potentially lifesaving experimental treatment in emergency situations, provided that "community consultation" is conducted. (An example would be a car accident victim in a comatose state for whom no next of kin can be quickly located.) The nature

of “community consultation” in a closed institution with hierarchical structure, like the armed forces, has not yet been fully explored.<sup>14,15</sup>

### ***Violating Patient Confidentiality***

Patient confidentiality may be breached in military medicine in the name of military or national security.<sup>16,17</sup> Violation of patient privacy would be unacceptable in civilian practice except under circumstances strictly defined by law, but it is generally accepted that a commanding officer can request disclosure by the medical officer of all medical information relevant to military performance. The commander is free to determine what he believes to be soldier behavior that allows him to request this information. The medical officer is likewise free to determine whether or not he agrees with the commander that this information should be given to the commander. Whether or not the medical officer agrees with the commander may in large part be driven by the degree to which the medical officer identifies with the military unit, rather than with his patients as individuals. It may also be influenced by the medical officer’s perception of what difficulties may follow if he refuses to comply with the commander’s request.

### ***Failing to Keep Adequate Records***

Thus far in this discussion of subordinating the best interests of the patient, we have examined the setting of medical priorities for military purposes, performing medical research without true informed consent, and violating patient confidentiality. Of these, the first two have the greatest potential for long-term medical consequences of an adverse nature. Soldiers who have been treated according to military guidelines, or subjected to medical research, may indeed develop problems later in life (after separation or retirement from the military) that can best be treated by full disclosure of all procedures or agents to which they were exposed. They deserve no less than full disclosure. However, the military does not always keep adequate or accurate records, or even necessarily see the need for such.

For example, the Presidential Advisory Committee on Gulf War Veterans’ Illnesses was sharply critical of the military’s poor record keeping on immunizations during the Persian Gulf War.<sup>18</sup> The failure to maintain adequate records and perform adequate follow-up on the 150,000 US troops who received anthrax vaccine during the Persian Gulf War is, in our opinion, inexcusable. Had the data been appro-

priately collected, they may have shed light on a possible relationship with the symptom complex known as Gulf War illnesses and possibly resolved current questions about the safety of the anthrax vaccine. We believe this situation was an example of subordinating data keeping necessary for the well-being of individual patients to the military mission.

### ***Overriding Patients’ Wishes***

As we indicated previously, soldiers lack some of the protection that their civilian counterparts have: the ability to “quit the job” or to appeal for help to another organization with power, such as a union. In addition, military physicians have more coercive capabilities than most of their civilian counterparts. The military physician has enormous power to override the wishes of individual patients “for the patient’s own good.” This powerful paternalism is permitted, and may indeed be fostered, both by the power and self-image of the individual military physician and by the power and wishes of the command structure. (This is an issue quite different from the use of military discipline in support of the “fighting force” to override the patient’s wishes and at times the patient’s best interest discussed in the previous section.) The power of the military medical officer over the patient has enormous potential for clouding the physician’s judgment and, indeed, for corrupting the physician. It is our belief that physicians in other “total institutions,” such as prisons and mental hospitals, also have the opportunity to substitute their values and their judgments for those of the patient and the patient’s family.

### ***Imposing Immunization for the Good of the Patient***

This ability of the physician to make decisions for the “good of the patient” can best be seen in the field of immunization of soldiers. As this is a situation in which the full pressure of the military system can be brought to bear on an individual soldier, it will be discussed in some detail. The military may require immunizations, both to protect the fighting force and “for the soldier’s own good.” It is not difficult to see the need for some specific immunizations to protect the fighting force, especially in those instances where troops are deploying to an area with a known incidence of a specific disease and there is an effective, safe, FDA-approved vaccine for the disease to which the troops most likely

would be exposed.

It is also easy to understand that some vaccinations have a long lead time before they are fully effective and therefore need to be given even if no specific deployment is anticipated. This is similar to required vaccinations to attend school or to travel overseas. Communities have the need and the right to protect themselves from the spread of known preventable diseases. When immunization is required in civilian public health practice to protect others beyond the individuals immunized, as in the case of an infectious disease spread from person to person, few would argue against immunization for community protection. We have no argument with that position being taken by the military. But we would disagree with the military if it believed immunization for a disease not spread from person to person is required to protect the individual simply for the good of the fighting force and required the individual to be immunized for that reason alone.

There are other instances in which the need, and thus the requirement, for immunization is not clear-cut. This can present an ethical dilemma. It is in these latter instances that the power to override a soldier's refusal permits the military physician to substitute the physician's (and the military's) judgment for that of the patient. Furthermore, even if a specific immunization may be of benefit to the individual soldier in the short run, we still believe that imposing immunizations on soldiers is an unethical practice violating the soldier's autonomy and destructive of good patient care in the long run because the soldier is not an active participant in decisions relative to his personal healthcare.

We are particularly concerned about the process by which these decisions are made. Because they involve the military responding to the possibility of a disease exposure, there is great room for error in addressing just how possible a given exposure scenario might be. An example of a situation in which troops were not permitted to refuse a vaccine was the required administration of anthrax vaccine. Anthrax has long been considered a potential biological weapon because anthrax spores remain infectious under a wide range of adverse conditions. Anthrax spores are believed to have been stockpiled by Iraq and perhaps by other nations as well. During the Persian Gulf War (1990–1991) there were reports that the Iraqis had developed the necessary stockpiles, had been working on a delivery system, and were going to use anthrax as a biological weapon against coalition forces. In December 1997, despite ongoing public controversy about the safety of the anthrax vaccine, the Pentagon an-

nounced that all 2.4 million active duty military personnel and reservists would be inoculated against anthrax.<sup>19</sup> The vaccine that the Pentagon began using was first developed during the 1950s, then reformulated in the 1960s, and finally approved by the FDA for general use in 1970. The vaccine had previously seen limited use; the vaccination of all military personnel represented a significant increase in the numbers of individuals receiving this vaccination.

Unfortunately, the evidence that the current vaccine would be effective in protecting troops against airborne infection with anthrax, the pathway that would most likely be used by biological weapons, was, in our view, questionable. The only published human efficacy trial of an anthrax vaccine was a study performed 40 years ago that demonstrated protective value against cutaneous anthrax; however, there were an insufficient number of cases of inhalational anthrax to demonstrate efficacy.<sup>20</sup> It would be unethical to conduct a controlled trial that involved purposeful exposure of humans to inhalational anthrax, but experiments have been conducted exposing monkeys and guinea pigs to inhalational anthrax.<sup>21,22</sup> These trials have yielded contradictory results. In fact, in 1994, 3 years before the Department of Defense announced its mandatory vaccination program, the Senate Veterans' Affairs Committee examined the issue of efficacy and safety of the vaccine and recommended that "the vaccine should be considered investigational when used as a protection against biologic warfare."<sup>23</sup> More recent experiments (1998) using rhesus macaques<sup>24</sup> have led to greater conviction by the military that the vaccine may be effective against the strain of anthrax to which the macaques were exposed. The difficulty lies in the fact that the military has no way of knowing if the strain used on the macaques will be similar to the strain that might be used as a weapon against humans. Further complicating the question of efficacy is the consideration that new strains of anthrax may have been developed specifically to defeat the current vaccine. Recombinant DNA (deoxyribonucleic acid) technology may be used to alter agents that cause illness so that they are no longer as susceptible to vaccines or antibiotics.<sup>25</sup>

Even if the vaccine could be demonstrated to protect against all strains of anthrax (which is currently not possible), the potential risks of mass administration of anthrax vaccine to military personnel were, in our view, largely unknown. Experience with other vaccines that have been used widely after relatively small field trials indicates that unanticipated problems can develop in the course of

massive use of approved drugs or vaccines. (The best-known example of such problems was that of the “swine flu” vaccine.<sup>26,27</sup>) With each additional immunization for a possible bioterror threat, the likelihood of adverse reactions increases. Furthermore, conduct of immunization programs by the military in the past, including its recordkeeping, does not inspire confidence. The Presidential Advisory Committee on Gulf War Veterans’ Illnesses, which (as already noted) was sharply critical of the military’s poor recordkeeping on immunizations during the Persian Gulf War, more recently characterized the Pentagon’s efforts to improve its medical recordkeeping in Bosnia,<sup>28</sup> where it used tick-borne encephalitis vaccine, as an “abysmal failure.”<sup>18</sup>

As we have noted, the military also failed to maintain adequate records or perform adequate follow-up of the 150,000 US troops who received anthrax vaccine during the Persian Gulf War. Given the massive scope and potential risk of this program, the interests of military personnel as well as the public would be better served if researchers unaffiliated with the Pentagon had been permitted to conduct further studies on the vaccine. The later analysis by the Institute of Medicine,<sup>29</sup> although in our view incomplete, supported the decision to use the vaccine. Another ethical issue lies in the question of informed consent by troops ordered to take a vaccine and whether they have a right to refuse without punishment. Several hundred members of the US armed forces refused to accept inoculation with the mandatory anthrax vaccine and many were threatened with punishment.<sup>30</sup> In addition, the US military should have encouraged its physicians to have accurately and quickly reported any adverse reactions to the vaccine, not only to the appropriate authorities, but also to the service personnel who may be taking the vaccination, to enable the latter to make an informed choice in their own healthcare. In summary, we disagree with the military’s requiring administration of a vaccine that may have been of questionable efficacy and safety, as we allege in the case of the anthrax vaccine, when problems with medical recordkeeping may make it impossible to track who might have received a “bad” batch of vaccine.

A report by the Subcommittee on National Security, Veterans Affairs and International Relations, 17 February 2000, criticized the DoD Anthrax Vaccine Immunization Program (AVIP). The subcommittee found “the AVIP a well-intentioned but overwrought response to the threat of anthrax as a biological weapon....As a health care effort, the AVIP

compromises the practice of medicine to achieve military objectives.”<sup>31(pp1–2)</sup>

### *Addressing Psychiatric Problems From a Military Perspective*

In dealing with work performance by military personnel, difficult issues arise, particularly in relation to psychiatric problems that present in combat theaters. Is battle fatigue or a severe stress reaction simply a normal reaction to an abnormal situation to be treated by rest (“three hots and a cot”) and prompt return to the battlefield, or are these symptoms of illness that require more treatment? The practice of “overevacuation” (the presumed excessive transfer of ill or injured personnel to a safe area rather than back to the frontlines of the military operation) has been cited as “one of the cardinal sins of military medicine.”<sup>1(p186)</sup> This value judgment is presumably based on overevacuation being a service to the patient and a disservice to the fighting force, hence the ethical dilemma. We believe the military physician must be free to make such decisions in the best interest of the patient.

### *Performing Battlefield Triage*

The question that arises in battlefield triage is stark: How far can a military physician go in the course of making decisions in the best interest of the patient? Battlefield triage may be seen by the military physician as being “for the soldier’s own good.” But when a wounded soldier is in agony, with no hope of effective treatment, evacuation, or reasonable pain relief, is it ethical for the military physician to use large doses of analgesia for the “dual purpose” of relieving pain and hastening death? Although the “double effect” is well recognized and accepted in medical ethical circles, its use in military situations may be ethically questionable. Even more troubling is the scenario in which there is no way to help the suffering soldier and, furthermore, his cries are likely to give away the position of the rest of the unit, thus jeopardizing others. Is it ethical for the physician to use large doses of analgesia in such a situation? Although this situation may be unlikely, it is an example of the type of dilemma making military medicine difficult. How might the physician’s identification with the unit affect such decision making? Would the physician even be aware of the influence of the well-being of others on this decision making? In military practice, however, it is our belief that the medical of-



ficer might assume the authority to make such decisions either to protect the fighting force (as discussed earlier) or “for the soldier’s own good.”<sup>32</sup>

Thus far we have presented two ethical dilemmas in the role of the physician-soldier: subordinating the best interests of the patient and overriding patients’ wishes. In both sets of situations, care has been given to patients: the dilemma has been that this care may not have been what the patient needed or wanted, and the physicians have not necessarily been free to fully advise the patients, as these physicians might in a civilian setting, about what might be in the patients’ best interests. We will now turn to a particularly troublesome area, that of failing to provide appropriate care to soldiers in other military units, civilians, and enemy soldiers.

### Failing to Provide Care

Before we discuss failing to provide care, let us briefly recapitulate the more recent history of the codification of the role of the physician in combat, with both its restrictions and requirements. Beginning in the middle of the 19th century, a series of international conventions was negotiated that were ultimately codified in a single, formal document in Geneva in 1949; together, they are called the Geneva Conventions. Agreed to at that time by 60 nations, the conventions were declared binding upon all nations according to “customary law, the usages established among civilized people...the laws of humanity, and the dictates of the public conscience.”<sup>33</sup> They included: the Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field; the Convention for the Amelioration of the Wounded, Sick, and Shipwrecked Members of Armed Forces at Sea; the Convention Relative to the Treatment of Prisoners of War; and the Convention Relative to the Protection of Civilian Persons in Time of War.

Under the conventions, medical personnel are singled out for certain specific protections by an explicit separation of the healing from the wounding roles. Medical personnel and treatment facilities are designated as immune from attack, and captured medical personnel are to be promptly repatriated. In return, specific obligations are required of medical personnel,<sup>33,34</sup> as summarized in the following list:

1. Regarded as “noncombatants,” medical personnel are forbidden to engage in or be parties to acts of war.
2. The wounded and sick soldier and civil-

ian—friend and foe—must be respected, protected, treated humanely, and cared for by the belligerents.

3. The wounded and sick must not be left without medical assistance and the order of their treatment must be based on the urgency of their medical needs.
4. Medical aid must be dispensed solely on medical grounds, “without any adverse distinction founded on sex, race, nationality, religion, political opinions, or any other similar criteria.”<sup>35(p28)</sup>
5. Medical personnel shall exercise no physical or moral coercion against protected persons (civilians), in particular to obtain information from them or from third parties.

Such duties are imposed clearly, permitting no exceptions, and given priority over all other considerations. Thus, the Geneva Conventions formalized the recognition that, although professional expertise merits special privileges, it likewise incurs very specific legal and moral obligations. That special role of physicians is now embodied in public expectations and in the ethical training of doctors in most societies. It is also embedded in the World Medical Association’s Declaration of Geneva,<sup>36</sup> which is administered as a “modern Hippocratic Oath” to graduating classes at many civilian medical schools.

How does the military medical community approach that special role of physicians as codified in the Geneva Conventions and embodied in public expectations? The Geneva Conventions and the Law of Land Warfare, which reinforces the Conventions, are required elements of instruction for all US military personnel, including healthcare professionals. However, unless instructors have as their primary goal the indoctrination of medical officers to follow the dictates of the Geneva Conventions, the Conventions will likely be taught in the context of the overall military mission, leading to the reinterpretation or neglect of the Conventions that can occur within a military unit. The ways in which the Geneva Conventions are taught (or neglected) will thus influence the self-image and role of the medical officer. It is our opinion that military medical training gives insufficient attention to the requirements of the Geneva Conventions and too much attention to the coherence and interdependence of the various components and missions of the military force.

It is not surprising, therefore, that an analysis of triage in *Military Medicine*, previously cited, states:

“[T]raditionally US combat casualty care has been directed toward US casualties first, allies second, civilians third, and enemy fourth. This is a time for reevaluation of ethical and moral principles and a reaffirmation that if the most seriously injured casualty is, in fact, an enemy soldier, he goes first.”<sup>4(p451)</sup> We question if such a reevaluation is taking place and if medical personnel who have as a primary duty the conservation of the fighting strength of their own forces would be willing to alter their priorities in this way. This certainly is an indication that, indeed, it is an inherent moral impossibility to be a physician-soldier, especially when it comes to the treatment of those seen as “others.” Following the hierarchy described in the *Military Medicine* article, we will first discuss providing care for other US soldiers, continue with treatment of civilians, and end with treatment of enemy soldiers.

### *Failing to Provide Care to Other Soldiers*

The military physician may become very closely identified with the command structure in which the physician serves. This happens because the military physician who trains or works closely with a unit, particularly with an elite unit, over a long period of time becomes dependent on the unit, just as the unit becomes dependent on the physician. Health professionals who are members of military units feel “bonded” to “their own” and may feel pressure from their commanders and peers to give preference to care for their own troops even if the medical needs of their own troops are less urgent than those of others. This was seen among the health aides serving with the Green Berets during the Indo-China War.<sup>37</sup> It may then be impossible for the physician to set priorities based solely on medical need.

### *Failing to Provide Care to Civilians*

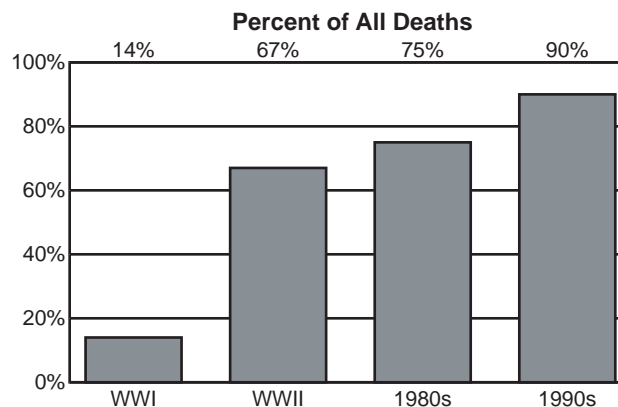
Civilians are increasingly being injured or killed during the conduct of contemporary war (Figure 11-1). In fact, 90% of deaths reported in selected wars in the 1990s were among civilians, many of them women and children.<sup>38</sup> Civilian homes are also damaged or destroyed, and their occupants are forced to move on, becoming “internally displaced persons” who are generally without healthcare. They are often in great need of health services, not only for war-related injuries and psychological trauma but also for ongoing health needs, such as diabetes.

Except in very special circumstances in which military physicians are specifically assigned to provide medical care for civilian populations, however,

military physicians may not provide such care—even for those whose need is greater than for military personnel. Unless the command structure for military physicians specifically requires them to base priorities for medical care on medical need, no matter whose need is involved, care for civilians may have low priority or none at all.

### *Failing to Provide Care to Enemy Soldiers*

Despite obligations under the Geneva Conventions to provide care to enemy soldiers (these obligations are discussed in greater detail in Chapter 23, *Military Medicine in War: The Geneva Conventions Today*, in the second volume of this two-volume textbook of *Military Medical Ethics*), there are reasons why military medical personnel may be unwilling or unable to accede to these obligations. For instance, refusal to treat the “enemy” for reasons of “patriotism” or “national security,” may be seen by some physicians as so important that these supersede the physician’s ethical responsibilities to patients. This is not a recent development, nor is it restricted to military physicians. In about 400 BC, the Great King of Persia, Artaxerxes II, sent emissaries to Hippocrates to ask him, “with the promise of a fee of many talents,” to help in the treatment of Persian soldiers who were dying of the plague. Hippocrates is reported to have dismissed



**Fig 11-1.** Civilian deaths as a percentage of all deaths in selected 20th-century wars. *Source:* Adapted from data provided by Ahlstram, C. *Casualties of Conflict: Report for the Protection of Victims of War*. Uppsala, Sweden: Department of Peace and Conflict Research, Uppsala University, 1991. Cited in: Bellamy C. *The State of the World's Children 1996*. New York: Oxford University Press; 1996. Reproduced with permission from Levy BS, Sidel VW, eds. *War and Public Health*. New York: Oxford University Press; 1997: 33.

the emissaries, stating that he would never “put his skill at the service of Barbarians who were enemies of Greece.”<sup>39(p448)</sup> Centuries later this sentiment still resonated with physicians. Just before the start of the US Civil War, the American Medical Association (AMA) selected as the model for a commemorative stone carving for placement in the Washington Monument, then being built in the District of Columbia, the painting “Hippocrates Refuses the Gifts of Artaxerxes.” The inscription the AMA selected for the stone was “Vincit Amor Patriae” [Love of Country Prevails].<sup>40</sup> These are powerful sentiments, held by both civilian and military physicians, and still in existence even with the codification of rights and responsibilities in the Geneva Conventions. These sentiments *will* influence behavior.

Ethical conflicts arise for military health personnel because they are a part of the armed forces. They wear the uniform, they observe the regulations and formalities, and they bond with their fellow soldiers. Simply put, it is easy for these medical professionals to see themselves as “us” and enemy soldiers as “them.” It is true that the Geneva Conventions forbid military services to require that their healthcare personnel give preference in care to their own troops or deny care to others, even members of the “enemy” force in times of war. *The Law of Land Warfare*<sup>41</sup> specifically reinforces this duty of medical impartiality. Neither document, however, addresses the human tendency to bond and identify with one’s “own type” and to turn against those seen as “others.” As long as physicians in the service of the military continue to be part of the military, including wearing the uniform, they will be susceptible to this human tendency to divide people into “us” and “them” rather than into categories of patients needing attention based solely upon their medical needs. It is our opinion that military physicians cannot, as members of the armed forces, live up to the expectations and responsibilities of the Geneva Conventions.

Up to this point we have been discussing military physicians and their tendency to subordinate the best interests of their patients, to override their patients’ wishes, and to fail to provide care to others in accordance with the requirements of the Geneva Conventions. All of these dilemmas we believe are directly related to the structure of the military itself, and the placement of the medical services within that structure. We have mentioned the powerful bonds that can develop when physicians overidentify with the warriors whom they tend to. Sometimes this overidentification leads to a blurring of the line between combatant and noncombatant roles.

## Blurring Combatant and Noncombatant Roles

If one describes a scene of a doctor, weapon in hand, it is natural to assume that the doctor is defending self or patients from an imminent or actual attack. That may be the most frequent circumstance under which doctors take up arms and inflict injury or death upon the enemy. That, however, is not the blurring of roles that we will be addressing. When we offer the image of the doctor, “weapon in hand,” we refer instead to that most troubling of images, which is that of the doctor actively participating in combat, or perhaps less actively participating but nonetheless subverting the aim and intent of medicine. We will begin our discussion first with the image that is most abhorrent: that of the doctor as a voluntary and active combatant.

## Participating in Combatant Roles

The Geneva Conventions require strict separation of the military and medical care functions, but this has not always been the case for these two professions. Perhaps history’s most dramatic attempt to meld these conflicting obligations of curing as opposed to killing was made by the Knights Hospitallers of St. John of Jerusalem, members of a religious order founded in the 11th century. With a sworn fealty to “our Lords the Sick,” the Knights defended their hospitals against “enemies of the Faith,” becoming the first organized military medical officers. They were “warring physicians who could strike the enemy mighty blows, and yet later bind up the wounds of that same enemy along with those of their own comrades.”<sup>34(pp1695–1696)</sup>

In the 19th century in the United States there were instances in which medical officers were clearly combatants without any apparent immediate need to protect those under their medical care. In 1861, Bernard J.D. Irwin, an Assistant Surgeon in the US Army “voluntarily took command of troops and attacked and defeated hostile Indians he met on the way”<sup>42(p206)</sup> at Indian Pass, Arizona. He was awarded the Medal of Honor in 1894. In 1865, Jacob F. Raud, an Assistant Surgeon in the 210th Pennsylvania Infantry, during the Civil War, “[d]iscovering a flank movement by the enemy [at Hatcher’s Run, Virginia], appraised the commanding general at great peril, and though a noncombatant voluntarily participated with the troops in repelling this attack.”<sup>42(pp184–185)</sup> He was awarded the Medal of Honor in 1896.

The most prominent of these medical combatants was Leonard Wood, who, as a recent graduate of

the Harvard Medical School and a civilian contract surgeon in the US Army in the Southwest in 1886, “[v]oluntarily carried dispatches through a region infested with hostile Indians, making a journey of 70 miles in one night and walking 30 miles the next day. Also for several weeks, while in close pursuit of Geronimo’s band and constantly expecting an encounter, commanded a detachment of Infantry, which was then without an officer, and to the command of which he was assigned upon his own request.”<sup>42(p235)</sup> Wood was awarded the Medal of Honor for his action and, after appointment as a Major General in the Regular Army in 1903, was in 1910 appointed Chief of Staff of the US Army. In the case of Leonard Wood, one might say in his defense that he had requested the infantry assignment that allowed him to pursue Geronimo, and therefore he was not really a physician during this time. Our question, however, is whether it should be ethically permissible for a medical officer to quit his medical role for a combatant role either temporarily or for a longer period.

### *Using Medicine as a Weapon*

It was in the period after the end of World War II that the US Army’s Special Forces were instituted, with the mission of “winning the hearts and minds” of indigenous populations, especially in Vietnam, to further the military mission. One of the positions in the Special Forces was that of the aidman, trained in rudimentary medical skills. Dr. Peter Bourne, who had been an Army physician working with the Special Forces in Vietnam, wrote that the primary task of Special Forces Medics was “to seek and destroy the enemy and only incidentally to take care of the medical needs of others on the patrol.”<sup>43(p303)</sup> These Special Forces aidmen were not considered protected medical personnel but rather were classified as combatants. Although their primary task was as combatants, aidmen also administered medical assistance to their own forces, and could do the same for other persons deemed to need assistance. The military, by combining combat capabilities with medical skills had perverted medical care into a “weapon.” These aidmen could offer care to indigenous populations, especially if it served the need of the Special Forces mission. We have previously discussed the potential hierarchy of medical care (first take care of one’s own, then allies, then civilians, then the enemy, without respect to severity of wound) that may be followed by military medical personnel. Just because these aidmen were not con-

sidered medical personnel by the US Army does not mean that the indigenous population did not see them as medical personnel who could choose to help or not. Even though Special Forces aidmen do not wear a “Red Cross” or similar medical emblem, once the aidman opens the bag and offers medicine, he becomes a “helper” in the eyes of the “patient,” and this deception is clearly unethical.

This issue of the role of medicine in the overall military mission was at the center of *US v Levy*, a case adjudicated in the military legal system. In 1967, Howard Levy, a dermatologist drafted into the US Army Medical Department as a captain, refused to obey an order to train Special Forces Aidmen in dermatological skills. He refused specifically on the grounds that the Aidmen were being trained predominantly for a combat role and that cross training in medical techniques eroded the distinction between combatants and noncombatants. For this refusal he was charged with one of the most serious breaches of the Uniform Code of Military Justice: willfully disobeying a lawful order. Tried by a general court-martial in 1967, Levy admitted his disobedience saying he had acted in accordance with his ethical principles. The physicians who testified for the defense, including one of the authors of this chapter (VWS), “argued that the political use of medicine by the Special Forces jeopardized the entire tradition of the noncombatant status of medicine.”<sup>44(p1346)</sup> They agreed with Levy that a physician is responsible for even the secondary ethical implications of his acts—that he must not only act ethically himself, but also anticipate that those to whom he teaches medicine will act ethically as well. Levy was given a dishonorable discharge and sentenced to serve 3 years in a military prison. Levy’s appeals were not successful.<sup>45</sup> The case of Howard Levy sent a message to other military physicians that the military organization would define for them what was ethical and what was not. This organizational intrusion into the ethics of medicine is yet another indication that the physician-soldier is expected to be first and foremost a soldier who obeys the orders of superiors, and only secondarily a physician who follows his conscience and his ethics.

### *Participating in Militarily Useful Research and Development*

It is a blunt and brutal fact of war that weapons systems are designed to render the enemy ineffective, generally by causing such destruction, maiming, and killing, or the fear of these, that the enemy



is unable or unwilling to fight. These offensive systems must, of necessity, take into consideration physical and medical facts, such as the amount of force necessary to penetrate structures and disable or kill their inhabitants. Inside or outside the armed forces, some health professionals are involved in militarily useful research and development, such as work on biological weapons or on the radiation effects of nuclear weapons. In such work, it is said to have been common practice to concentrate physicians into "principally or primarily defensive operations."<sup>46</sup> But work on weapons and their effects can never be exclusively defensive, and at times the distinction is quite arbitrary. The question arises whether there is a special ethical duty for physicians (because of their medical obligation to "do no harm") to refuse to participate in such work, or whether in non-patient-care situations physicians simply share the ethical duties of all human beings.<sup>47</sup> It is our contention, again, that physicians are always physicians and therefore should adhere to their ethical duty to "do no harm." They should be very vigilant about whatever work they may do pertaining to weapons systems, and what might ultimately be done with the results of their work. If they are unable to ascertain the final use of their work, we believe the ethically responsible action would be to resign from that task.

### *Participating in, or Failing to Report, Torture*

In the section on research and development, we have alluded to the fact that knowledge of human physiology is a part of the development of offensive weapons as well as defensive strategies for dealing with such weapons. A more egregious example of the use of medical knowledge is that of participating in, or failing to report, torture. It is important to remember that physicians have been given the privilege by society to learn about the human body, including what can be endured or what cannot. Using such knowledge to facilitate torture is indeed an abhorrent activity.

We have also noted that physician-soldiers are vulnerable to the influence of military organizations, whether that influence is subtle or overt. An example of military forces attempting to influence medical officers to violate their ethical standards is illustrated by evidence from Turkey.

After legislative changes in the aftermath of the 1980 military coup, a military school of medicine was established for the purpose of training doctors

solely for the military. In a ceremony at this military school, the head of the junta, addressing the soldier students, said: 'You are first and foremost soldiers, and only after that doctors.' This was evidence that military doctors were expected and obliged to give priority to the chain-of-command, above and over the medical code of ethics.<sup>48(p77)</sup>

Of even greater concern is the actual participation of physicians in torture, as was the case with some military physicians in Uruguay who assisted in the systematic use of torture during the military dictatorship from 1972 to 1983.<sup>49</sup> Although it is clear that Turkey and Uruguay have different procedures for military personnel than does the United States, the fervor that drove military personnel to perform these acts may at times influence practices in other nations. There is no legal basis for US armed service commanders to order the use of torture to elicit information from enemy prisoners. In fact, an order to perform such actions should be refused by the military health professional and the commander who ordered it could be charged with issuing an illegal order. In order to take such an action, however, the military healthcare professional would have to believe that no harm would come to him from refusing to obey or from bringing charges against the commander, or would need to be willing to suffer the consequences of taking personal action. Military physicians would feel freer to pursue the dictates of their conscience if there were a better sense of the moral agency of the military physician.

It is less clear that a medical officer who reports the torture would not be ostracized or even subjected to military discipline. As with the "informal hierarchy" that influences which patients get treated first by military physicians, there is also likely to be a strong, through informal, sense of "us" and "them," shared by physician and soldier alike. By being part of the military unit, these physician-soldiers are more likely to agree that such a reprehensible action as participating in torture might be justified under some circumstances. This tendency to overidentify with the unit, its personnel, and its mission, is yet another reason why physicians should not be a formal part of these military organizations.

### **Preventing Physicians From Acting as Moral Agents Within the Military**

The case of Captain Howard Levy, the dermatologist who refused to train Special Forces Aidmen,

illustrates that those who adhere to their moral compass and refuse to pervert medicine for the sake of the military mission may face sanctions for their actions. In the following discussion, the focus will be on three areas in which the military interferes with physicians as moral agents by: (1) preventing physicians' attempts to protect military personnel; (2) preventing physicians from taking moral actions in military operations; and (3) preventing physicians from expressing their moral protest. By stifling the ability of physicians to act as moral agents, the military increases the likelihood that medicine will be used inappropriately.

### ***Preventing Moral Actions by Physicians in Military Operations***

There is considerable literature on "total institutions," such as prisons and mental hospitals, in which the role of the individual to make independent decisions is severely limited.<sup>50</sup> A number of specific issues that are related to the health professional's role in the military as a "total institution" have already been discussed. The impact of the total institution on medical ethics is particularly seen in the field situation. The field commander may not understand the perspective or the needs of the health professional or may not have time to evaluate the ethical dilemma the health professional faces. Response to psychiatric conditions may pose special problems in the field. The health professional's inability to refuse to obey orders, even when the orders conflict with ethical judgments, is an example of the effect of the military institution on medical ethics. The Levy case, discussed previously, demonstrates the conflict between medical ethics and military practice. This effect is obvious in the area of preventing moral protest actions by military personnel, especially physicians. It is to this area that we will now turn for a rather lengthy discussion of the issues of suppressing moral protest, and what it means for the individuals involved, the medical profession, the military, and society itself.

### ***Preventing Moral Protest Actions by Physicians***

When physicians don the military uniform, and raise their hand to take the oath of induction into the armed forces, they do more than join an organization. They also leave behind their civilian life and with it many of the basic rights that they enjoyed as civilians. Chief among these rights is that of actively participating in the political process, includ-

ing the right to publicly protest as members of their profession. Medical personnel in the United States have, for example, joined protests against the disastrous effects on the civilian population of Iraq of the sanctions imposed by the United Nations since the end of the Persian Gulf War and the effects on the civilian population of Cuba of the sanctions imposed by the United States. Like all members of the armed forces, military health professionals are limited by threat of military discipline in the extent to which they can publicly protest what they believe to be unjust or harmful acts. (Military personnel cannot publicly make contemptuous statements about the President or other officials, nor can they make statements held to be disloyal.) The decision in February 2002 by military reserve personnel in Israel to refuse assignment to the occupied territories on moral grounds is, in our view, a recent example of a moral action that contravenes military policy.<sup>51</sup>

The question we pose is simple: Does a military physician have a special responsibility or a special right to criticize military practices in medicine or in general? Should military medical personnel have had the right, as moral agents, to protest the US/NATO (North Atlantic Treaty Organization) attack on Serbian forces that allegedly led to "collateral damage" to civilians? Should military medical personnel have had the right, as moral agents, to protest the US military forces bombing of the Al Shifa pharmaceutical plant in the Sudan, which allegedly provided half the medicines for the North African region?<sup>52</sup> We believe that they should have this right of moral protest, but we also acknowledge that within the military, the sanctions are significant for engaging in protest of acts deemed to be unjust or harmful.

Just as military personnel cannot publicly protest what they believe to be unjust acts, they are also limited in the extent to which they can publicly protest what they believe to be an unjust war. The issue of what is a "just war,"<sup>53,54</sup> which has been debated for over two millennia, is developed more fully in Chapter 8, Just War Doctrine and the International Law of War, in this volume. There are generally held to be two elements in a just war: *jus ad bellum* (when is it just to go to war?), and *jus in bello* (what methods may be used in a just war?). Among the elements required for *jus ad bellum* are a just grievance and the exhaustion of all means, short of war, to settle the grievance. Among the elements required for *jus in bello* are protection of noncombatants and proportionality of force, including avoiding (a) use of weapons of mass destruction,

such as chemical, biological, and nuclear weapons; and (b) massive bombing of cities.

Membership in the armed forces, even in a non-combatant role such as that of a physician, may require self-censorship of public doubts about the justness of a war in which the armed forces are engaged. However, many health professionals consider themselves pacifists. "Absolute pacifists" oppose the use of any force against another human being, even in self-defense against direct, personal attack. They believe that the use of force can only be ended when all humans refuse to use it, and that acceptance of one's own injury or even death is preferable to use of force against another. (When a military force threatens genocide, as the Nazis attempted in World War II, many who might otherwise adopt a pacifist or limited pacifist position believe that force may be justified. Their shift in position is based on the threat to the very survival of the group, a threat that to some makes untenable the pacifist argument that current failure to resist will lead to future diminution in violence.) More limited forms of pacifism hold that the use of certain weapons of mass destruction in war is never justified, no matter how great the provocation or how terrible the consequences of failure to use them.

There is considerable debate whether health professionals, because of a special dedication to preservation of life and health, have a special obligation to serve or to refuse to serve in a military effort. That position is made more complex by a role as a military noncombatant. Many military forces nonetheless permit health professionals, like other military personnel, to claim conscientious objector status. In the United States, conscientious objection is defined as "[a] firm, fixed and sincere objection to participation in war in any form or the bearing of arms because of religious training or belief."<sup>55</sup>(p16) Religious training and belief is defined as "[b]elief in an external power or being or deeply held moral or ethical belief, to which all else is subordinate...and which has the power or force to affect moral well-being."<sup>55</sup>(pp16-17) The person claiming conscientious objector status must convince a military hearing officer that the objection is sincere.<sup>56</sup> Those who oppose war in all forms can be released from military service, as has been discussed in Chapter 9, *The Soldier and Autonomy*, in this volume.

Physicians who are situational pacifists (ie, they have refused to support a specific war effort rather than war in general) have great difficulty in the military. In a recent and well-publicized example, Yolanda Huet-Vaughn, a physician and captain in

the US Army Medical Service Reserve, refused to obey an order for assignment to active duty before the beginning of the Persian Gulf War in 1990. In her statement, she explained:

I am refusing orders to be an accomplice in what I consider an immoral, inhumane and unconstitutional act, namely an offensive military mobilization in the Middle East. My oath as a citizen soldier to defend the Constitution, my oath as a physician to preserve human life and prevent disease, and my responsibility as a human being to the preservation of this planet, would be violated if I cooperate...<sup>57</sup>

The reasons Huet-Vaughn gave for her action were quite different from the reasons given by Levy more than two decades earlier. Levy refused to obey an order that he believed required him to perform a specific act that would violate the Geneva Conventions; Huet-Vaughn refused to obey an order she believed required her to support a particular war that she felt to be unjust and destructive to the goals of medicine and humanity. After Huet-Vaughn's conviction at court-martial for "refusal to obey a lawful order" (to report for transfer to the Persian Gulf), she was imprisoned at Fort Leavenworth, Kansas.

If a health professional considers service in support of a particular war to be unethical on the grounds of medical ethics, may or indeed must he refuse to serve, even if that objection does not qualify for formal conscientious objector status? Furthermore, is there an ethical difference if the service is required by the society as in a "doctor draft," or if the service obligation has been entered into voluntarily to fulfill an obligation in return for military support of medical education, training, or for other reasons? Is military service indeed a "voluntary obligation" if enlistment, as it is for many poor and minority people, is, in part, induced by their lack of educational or employment opportunities or, as it is for many health professionals, by the cost of education or training that in other societies is provided at public expense? These are difficult questions to answer.

Although few health professionals are willing or able to take an action such as that taken by Huet-Vaughn, other actions are available to oppose acts of war considered unjust, to oppose a specific war, or to oppose war in general. Additional issues for military medical officers have been raised by the advisory opinion of the International Court of Justice (World Court) in 1996<sup>58</sup> that the use or threat of use of nuclear weapons is contrary to international law except under extraordinary circumstances. Fur-

thermore, with the ratification by the United States of the Chemical Weapons Convention<sup>59</sup> and its coming in force in 1997, there are other concerns for military physicians as well. (These concerns are addressed by the Federation of American Scientists<sup>60</sup> and the Organization for the Prohibition of Chemical Weapons.<sup>61</sup>) If medical officers in any nation are aware that use or threat of use of nuclear weapons, which has been declared contrary to in-

ternational law by the International Court of Justice, or that use or threat of use of chemical or biological weapons, which is banned by the Chemical Weapons Convention and the Biological Weapons Convention, remains part of the war plans of the armed services they serve, what is their obligation under international law? This is a question that surely needs to be answered to ensure that military physicians are moral agents.

## ENHANCING PHYSICIANS' ABILITY TO SERVE AS MORAL AGENTS

We propose that a dialogue begin between the military command structure and the military and civilian medical communities to address these issues. We believe health professionals have a special ethical responsibility, in view of their obligation to protect the health of their patients and their community members, to refuse to support a war they believe will cause major destruction to health and environment.<sup>62,63</sup> Furthermore, we believe that both the military and the civilian society it protects will be more ethical if these issues are discussed and resolved.

If, as we believe, the physician cannot act as a moral agent within the military, what possible alternatives are there? We propose two that should be considered in any dialogue seeking to enhance physicians' ability to function as moral agents in both the military and the society it serves. These are (1) restructuring military medical service to allow for physicians to be moral agents, or (2) allowing physicians to select alternative service in the event of a doctor draft.

### Restructuring Medical Service in the Military

An important reason for a health professional to become or remain a member of the armed forces of a nation is to use the position as an opportunity to insist on behavior that is consistent with ethical values and international humanitarian law. In 1985, Colonel Malham Wakin, Professor and Head of the Department of Philosophy and Fine Arts at the United States Air Force Academy, published an article entitled "Wanted: Moral Values in the Military."<sup>64</sup>

Colonel Wakin, after analyzing the circumstances surrounding the killing of at least 175 unarmed Vietnamese prisoners, many of them obviously noncombatants, by American soldiers at My Lai in March 1968, called for "persons of excellent moral character to serve and lead the profession of arms."<sup>64(p26)</sup> We applaud and endorse the statement of Colonel Wakin, but would amend it to address specifically the needs of the medical profession. If the military medical pro-

fession were suffused with persons of excellent moral character, it is conceivable that the military medical profession would exert more influence on the command structure above it to consider not just the tactical considerations of military decisions, but also the humanitarian aspects of these decisions.

If the nature of the roles of those serving in the medical services of the armed forces is sufficiently changed and if those serving have the strength of character to avoid ethical compromise, they can make an important contribution to the moral level of the military.<sup>65,66</sup> One of the most important responsibilities that medical officers have is to make certain that they, other medical personnel, and all members of the military do not commit unethical acts. (Unfortunately, physicians in the armed forces of some nations have participated in or refused to report such violations.<sup>67-70</sup>) There are other examples of contributions to military ethics by health professionals.<sup>71-73</sup> Although these contributions are important, it is our view that extremely limited opportunities exist under a structure of military control of the medical system for military health professionals to contribute effectively to military ethics. It is possible, but seems to us unlikely, that the structure could be changed sufficiently to permit ethical service and ethical contributions by medical officers. If adequate change cannot come from within the military, what options are available for these services to be provided outside the military? The only other option we can identify is that physicians treating military personnel remain outside the control and indoctrination of the military.

### Selecting Alternatives to Military Service

If ethical service in the military by health professionals is, as we assert, impossible, it is time to ponder what alternatives are available to health professionals. These alternatives may take the form of overt dissent, of seeking conscientious objector status, or serving in a nonmilitary health organization. With civilians now accounting for 90% of those



killed in war and with threats of the use of weapons of mass destruction continuing, is any form of military service appropriate for the ethical health professional? We would offer that one response, suggested in the late 1930s by John A. Ryle, then Regius Professor of Physic at the University of Cambridge, remains relevant today:

It is everywhere a recognized and humane principle that prevention should be preferred to cure. By withholding service from the Armed Forces before and during war, by declining to examine and inoculate recruits, by refusing sanitary advice and the training and command of ambulances, clearing stations, medical transport, and hospitals, the doctors could so cripple the efficiency of the staff and aggravate the difficulties of campaign and so damage the morale of the troops that war would become almost unthinkable.<sup>74(p8)</sup>

We realize that it may be an invalid assumption that the war effort of all belligerents would cease if no medical support were provided. In addition, refusal to serve is not a viable option for physicians in a number of present-day countries in which dissent of this type is not permitted. Nonetheless we feel it is important to state this opposition, even if others counter that it is naive, because by stating this opposition we can foster discussion of these ethical dilemmas. Such an effort to encourage dialogue was made during the Vietnam War when more than 300 American medical students and young physicians applied Ryle's argument to the war in Indochina by signing the following pledge:

In the name of freedom the US is waging an unjustifiable war in Viet Nam and is causing incalculable suffering. It is the goal of the medical profession to prevent and relieve human suffering. My effort to pursue this goal is meaningless in the context of the war. Therefore, I refuse to serve in the Armed Forces in Viet Nam; and so that I may exercise my profession with conscience and dignity, I intend to seek means to serve my country which are compatible with the preservation and enrichment of life.<sup>75(p306)</sup>

Public protests such as these by physicians may have played a role in the efforts of civil society in the United States to end the war in Vietnam, and more generally illustrate the role physicians may

play in effecting change.

A physician's right to refuse to serve in the military at all on a conscientious objector basis is complicated by the status of the physician as a noncombatant. When military service by physicians is required through a doctor draft, the physician may not be able to avoid the ethical problems caused by mixed agency and may not be permitted to resign on a conscientious objector basis. When military service by physicians is voluntary, the so-called noncombatant status of health professionals in military service may also prevent the volunteer medical officer from resigning on a conscientious objector basis when ethical conflict arises—as was the case for Dr. Huet-Vaughn.

Other health professionals may wish to accept a service alternative consistent with an ethical obligation to protect health and prevent illness or to care for those wounded or maimed, without simultaneously supporting a war effort. Although opportunities for service in an international corps, such as *Médecins du Monde* or *Médecins sans Frontières* (which was awarded the 1999 Nobel Peace Prize), are limited, health professionals may have opportunities to work with such organizations. If humankind is to survive, health professionals may need to consider new forms of national service and to contribute, in a broader sense, to their nation and the world.<sup>76,77</sup> We believe that at some point in the future (even though it clearly has not been that way in the past [Figure 11-2]), the world will truly evolve into a "global community" in which individuals as well as nations will understand that what people have in common is far greater than their areas of difference. At that point we believe that a global perspective on medical care will help ensure that all humans have equal and competent care. Until this is achieved, what should the medical community do in a world in which war is an all too commonplace occurrence?

We believe health professionals have a special responsibility to attempt to prevent injury and death to both military personnel and civilians. Therefore, they may wish, as individuals and in groups, to help prevent war wherever it may occur. The health professional should do so by contributing to public and professional understanding of the nature of modern war, the risks of weapons of mass destruction, and the nature and effectiveness of alternatives to war.

## CONCLUSION

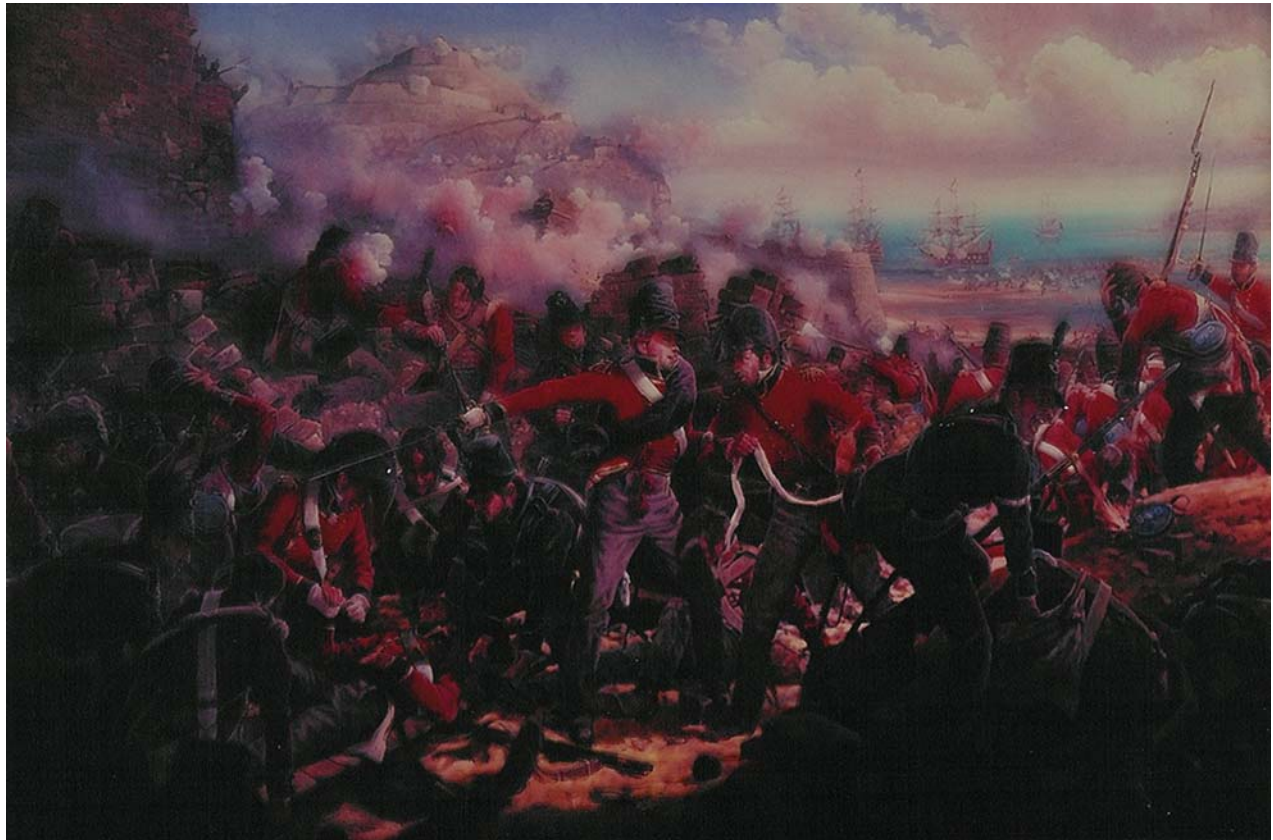
In this chapter we have looked at the ethical dilemmas we see as significant barriers to the provision of ethical military healthcare. Specifically, these were subordinating the best interests of the patient,

overriding patients' wishes, failing to provide care, blurring combatant and noncombatant roles, and preventing physicians from acting as moral agents within the military. This chapter has also explored

a



b





c



**Fig. 11-2.** This series of figures illustrates the ways in which war has increasingly targeted civilian populations, a topic we believe of major concern to military physicians. (a) War portrayed in the 15th century: *Battaglia* (Battle), Paolo Uccello, circa 1450. The Battle of San Romano was fought in 1432 in a war between Florence and Siena. The combatants are on horseback and the painting shows the carnage that resulted to the men and to the horses involved; no civilians are shown. Paolo Uccello produced three paintings of the *Battaglia di San Romano*. One hangs in the Uffizi Museum in Florence, one in the National Gallery in London, and one in the Louvre in Paris. Image © Archivo Iconografico, S.A./CORBIS, reproduced with permission. (b) War portrayed in the 19th century: *Assault on the Breach of San Sebastian*, Mark Churms. The battle was fought in 1813 as part of the Peninsula War. This painting shows care for wounded British soldiers; no civilians are shown. "The Storming party, 750 volunteers, ... moved off at two in the morning on 31 August 1813, and occupied a ruined convent where they remained till half past nine....[for] the attack on the breach which could not be entered except in single file under heavy fire. The troops attacked in succession, but were struck down by hundreds. ... A shell ignited a quantity of powder, and under cover of the explosions, the storming party forced its way into the town. San Sebastian was savagely sacked and burned, and the ... civilians were raped, robbed, and murdered in revenge for the heavy losses suffered by the troops." (Text by Atlanta Clifford, assistant to the Curator-The Guards Museum).... Image © Mark Churms, reproduced with permission. (c) War portrayed in the 20th century: *Guernica*, Pablo Picasso, 1937. On 26 April 1937, 43 German planes bombed the Basque city of Guernica in northern Spain, killing more than 20% of its 7,000 residents. The attack marked the beginning of terror bombing of civilian targets in the Spanish Civil War, which continued through the bombing in World War II of Warsaw, Rotterdam, London, Coventry, Hamburg, Dresden, Osaka, Tokyo, Hiroshima, and Nagasaki, among many other cities. This painting was commissioned by the government of Spain, which asked him to prepare it for exhibition at the Spanish pavilion at the 1937 Paris World's Fair. After the fair closed, the supporters of the Spanish government during the Spanish Civil War sent the painting on a tour of cities ending in New York City, where the painting spent the years during World War II and after at the Museum of Modern Art and is still on its website. After Spain returned to democratic government, the painting was sent back to Spain and now hangs in the Reina Sofia Museum in Madrid. Image © Archivo Iconografico, S.A./CORBIS, reproduced with permission. Image © 2003 Estate of Pablo Picasso / Artists Rights Society (ARS), New York, reproduced with permission.

what happens when individual physicians seek to act in accordance with their ethical beliefs. The military system, large, impersonal, and formidable, dispenses its own version of justice. The imprisonment of Captain Levy during the Vietnam War era and Captain Huet-Vaughn during the Persian Gulf War era both demonstrate the military response to the overt expression of physician conscience. If war were becoming a thing of the past because nations were seeking arbitration to their differences, then we might modify our opposition to medical professionals in the military. This, sadly, is not the case. We have also proposed that a dialogue be undertaken among military command structures, military physicians, and civilian physicians to discuss these dilemmas and to develop solutions for them.

In summary, we believe it is morally unacceptable for a physician to serve as both a physician and a soldier in the United States military forces, and probably in other military forces as well. The ethical dilemmas for military medical personnel analyzed in this chapter and the ethical dilemmas faced by health professionals engaged in peacemaking and peacekeeping activities outside the military are often distorted by the fervor that may accompany war and preparation for war. These dilemmas, which require dispassionate analysis and action in times of peace, are being widely discussed in and out of the armed forces. Each military medical officer, in our view, has a duty to participate actively in this discussion and to evaluate the ethical conflicts involved in his role.

### Acknowledgments

This chapter is, in part, based on previous chapters and articles: Sidel VW. Aesculapius and Mars. *The Lancet* 1968;966–967; Sidel VW. Quid est amor patriae? *PSR Quarterly* 1991;1:96–104; Sidel VW. Warfare I. Medicine and War. In: Reich WT, ed. *Encyclopedia of Bioethics*, 2nd Ed. New York: Macmillan, 1995; 2533–2588; and Sidel VW. The role and ethics of health professionals in war. In: Levy BS, Sidel VW, eds. *War and Public Health*. New York: Oxford University Press; 1997: Chap 18. The authors are grateful to Tod Ensign, H. Jack Geiger, John C. Moskop, and Edmund Pellegrino for their suggestions.

### POINT/COUNTERPOINT—A RESPONSE TO DRS. SIDEL AND LEVY

An ethical argument is sound only to the degree that it recognizes the strongest arguments against it and shows why they are wrong. Sidel and Levy add a critical component to this textbook because they provide the first of these two requirements. They present the strongest arguments that they and others have made against several military medical practices.<sup>78,79</sup> The task remaining is to show which, if any, of their arguments is not valid and why.

Their contribution, however, goes beyond providing these arguments. In challenging military medical practices, they reopen them for discussion. This could lead to new practices that are morally preferable. This, of course, is one of the major purposes of this textbook—to explore military medical ethics and suggest areas for improvement. Just as importantly, military physicians may from time-to-time ask themselves the same questions Sidel and Levy ask or be confronted with these questions by others. To maintain their sense of moral integrity, they must know how to answer these questions.

Providing some of these answers will be the

thrust of this response. To do this most clearly, I shall address Sidel and Levy's arguments in essentially the same order in which they gave them. I shall do primarily two things: (1) I shall indicate where Sidel and Levy's arguments go wrong, and (2) where they offer challenges that warrant discussion or could result in military medicine caring for patients better, or both.

### Rebuttal of Key Points

In their *Introduction*, Sidel and Levy state rightly that the same kind of conflicts that military doctors face exist in civilian contexts as well. They state rightly, also, that soldiers have a need and right to medical care. As both these comments suggest, they do not claim that doctors shouldn't care for soldiers who are wounded during combat. They do claim that these doctors should not be members of the armed forces, but rather should be neutral care providers. They state that some ways in which medical care in the military is structured is suboptimal



and that this results in inferior ethical outcomes. They list these. I shall discuss these separately and then their overall conclusion that doctors should not serve as members of the armed forces.

### *Military Medical Triage*

Sidel and Levy accept the underlying principles and rationale of military medical triage, namely, that if a war would be lost if minimally wounded soldiers were not returned to the battle, the military missions must be placed first. Therefore the minimally wounded must be treated before those more seriously injured for there to be the greatest good for the greatest number. This practice must be pursued to protect soldiers and, ultimately, this country, as well as other countries that would need this country's assistance to protect themselves. (The concept of differing models of triage is discussed more fully in Chapter 13.) However, they disagree with how and when these principles are applied. They assert that military physicians are unduly vulnerable to identifying with military, as opposed to patients', interests and, thus they could apply military medical triage principles too readily.

Their premise is sound. If military doctors apply these principles of triage too readily this would lead to those seriously wounded soldiers who are not treated first losing their lives unnecessarily. Although their premise is sound, their assumption is incorrect. Line officers, who have far greater expertise and information than military physicians regarding the needs of the military mission, ultimately determine the ethical priorities military physicians must follow. If, for example, soldiers are ill but can fight, line officers (having been informed by military physicians regarding these soldiers' health) decide whether they still should fight under these conditions.<sup>80</sup> This is what should occur. Those who are most capable of deciding what is necessary to best prevent such horrors as global genocide should be the ones to do so. The only other option would be to let persons with less expertise, such as physicians, make these decisions.

Here, despite their misunderstanding of triage, is a first example in which their challenge could enhance military medical care. For the best and most informed decisions to be made by the commander, there must be open and forthright communication between physicians and commanders. Military physicians must give line commanders information so that these commanders then can best decide when the military medical triage principles should be

applied. Correspondingly, whenever military physicians apply these principles, they should be sure this is necessary.<sup>81</sup> To do this they must also maintain ongoing communication with line commanders so that if and when it becomes no longer necessary to apply these principles, they can immediately *reinstitute* triage principles that would apply in a civilian setting. Optimal structures may be in place for exchange of information between the line and the military physician. If they are not, they should be established.

### *Medical Research*

Sidel and Levy wholly misunderstand the basis on which soldiers were required to take preventive agents to protect themselves from biological and chemical weaponry during the Persian Gulf War. They contend the use of PB as a pretreatment for the effects of nerve agents was unethical because of the absence of informed consent and because the drug was not approved by the FDA for this purpose. They also contend that the "extraordinary circumstances" necessary to warrant use of the drug were not present and furthermore that there was inadequate evidence that PB would have been effective. Based on Saddam Hussein's previous use of chemical agents against the Kurds in northern Iraq, there was ample reason to believe that he could have used this weaponry against coalition forces during this war. There was also unequivocal evidence that these protective agents would have helped. The use of these agents was solely protective.<sup>82</sup>

There are many nonmedical examples of requiring soldiers to use protection against an identified threat (for example, chemical protective over garments [CPOG], "flak" jackets, Kevlar helmets), some of which have medical complications associated with them (heat injury caused by wearing the CPOG or body armor). Although the preventive agents required during the Persian Gulf War would not fully protect soldiers if biological or chemical weaponry were used, they would nonetheless help. This belief was based on the best scientific evidence, evaluated by the most knowledgeable military and civilian authorities at this time.

(In fact, then, as now, research standards are exceptionally strenuous in the military. Many feel they are too strict, because some research, which can be done in civilian settings, simply can't be done in the military. For example, military institutional review boards (IRBs) most rigorously question whether servicepersons are free from inherently

coercive factors so that they can decide without pressure whether they want to participate in research. The protective agents soldiers were required to take during the Persian Gulf War were not, then, given at all for the purpose of research. They were given to soldiers to save their lives in spite of the fact that they had not been, and could not be, adequately tested for this purpose.)

Although Sidel and Levy misunderstand why soldiers had to take these preventive agents, their challenge makes a valid and important point. Because biological and chemical weaponry could be used against us, if agents are protective they should be used if they could substantially reduce the harm these weapons could cause. Still, the potential gains will always be uncertain and the risks unknown. This will especially be the case as new weaponry and protective agents are developed.<sup>83,84</sup>

It is, therefore, of the utmost importance that the best scientific data be gathered, continually updated, and assessed by both military and civilian experts, as they were during the Persian Gulf War. Even with the best scientific knowledge, however, the ethical decision of when an agent should be used will remain problematic. The persons who should decide this should be fully knowledgeable of military needs and realities, unbiased, and representative of the public will. For such a group to be able to respond in as timely a manner as may be required, it may be that a new structure to do this is needed. To ensure that these scientific judgments aren't inadvertently biased, civilian experts should be among those making these assessments, as was the case during the Persian Gulf War.

The one way soldiers' autonomy can be best respected even under these conditions is to inform them fully before they enlist that they may have to take some protective agents not adequately tested for this use. That they may need to do this is now common knowledge, but this could and, perhaps, should be done more extensively and explicitly. A structural innovation Sidel and Levy encourage could be this: When soldiers enlist, they should be briefed about this, then tested to help ensure that they know they could be required to take protective agents. (This model of testing is now used sometimes when persons agree to participate in research. To some, this testing in research represents the ethical edge of this field.)

Sidel and Levy make another valid and important point concerning the "voluntary" nature of military service and thus the ability to grant informed consent. They assert rightly that persons

may gain a great deal by joining the military. They may, for example, escape poverty and learn a trade. This incentive makes their decision to join the military inherently coercive. Thus, they cannot freely choose whether to enter the military and accept being required to take these protective agents. This kind of problem has occurred before. It occurred, for example, when men joined the military just before the US entrance into World War II, when many were jobless as a result of the economic depression of the 1930s. This concern rightly reflects the importance of protecting those most vulnerable. Thus, Sidel and Levy here provide an additional reason for informing soldiers that they may have to take protective agents prior to their enlisting.

Sidel and Levy also comment about untested treatments and the need for community consultation. Again, they are right. If any treatment is not fully tested and is given to soldiers, they are at additional risk. If they would be given this treatment on the battlefield but are so stricken that they are not competent, these soldiers couldn't consent. There is then a need for others to provide consent for them on their behalf, or for community consultation. An aspect of this situation they do not mention, however, is that if these soldiers would otherwise die, these treatments, though not fully tested, may save their lives. As with protective agents, these treatments would not be given for the purpose of research, but rather for the purpose of treatment.

Because soldiers risk their lives for the greater society, they may deserve special access to these treatments on the ground of compensatory justice. (See Chapter 26, *A Look Toward the Future*, and Chapter 27, *A Proposed Ethic for Military Medicine*, for a discussion of this concept). The application of this principle has, in fact, already begun. Effort is now being undertaken to make a new, possibly life-saving, intervention available to soldiers stricken on the battlefield who otherwise would die. The structure for doing this is just being developed and involves IRBs. Its purpose, however, is not primarily research. Its purpose is to save soldiers' lives. It represents a compassionate, earlier use of a new treatment, much like earlier use is now permitted for civilian patients who have cancer or acquired immunodeficiency syndrome (AIDS). It may be that this compassionate use should have been instituted long before. Regardless, as Sidel and Levy suggest, there must be a structure to maximize the likelihood that these untested treatments will be helpful as opposed to harmful. The present structure of IRBs may or may not suffice.

### *Confidentiality*

Sidel and Levy believe that the medical officer can decide what patient information is confidential. They also believe that the medical officer may be unduly biased in favor of the military. The thrust of their concern is valid and important. That military physicians are vulnerable to acquiring such a bias is beyond controversy.<sup>85</sup> Military doctors can, however, refer requests for confidential medical information to military lawyers. These lawyers can then decide what, if any, information is critical to meeting mission needs. Sidel and Levy are right that military doctors may fail to do this when they can and should. This also may be, as they claim, because military doctors overidentify with the needs of the military or are afraid of taking a stand that opposes higher authorities.<sup>86</sup>

This is an instance in which these authors' appeal for structural change and innovation may be particularly sound. This change could require, for example, military physicians being required to refer such requests to a third party, such as the military lawyer. It could also allow, time permitting, for an appeal. So that the urgency of the request could be reasonably assessed, commanding officers requesting such records could be required to indicate how soon they need these records, and give the rationale for their urgency.

Here, however, the military lawyer, like the military physician, may be unduly biased. Thus, there may be a need for some check on their decisions, such as involving civilians in the process. The risk this poses is that these civilians must be fully knowledgeable regarding the military's genuine needs and realities or else the results can be untoward. If they are not, their judgments, though well-intentioned, may place soldiers and the world population at greater risk. Civilians having this knowledge is, consequently, an absolute limiting factor.

### *Failing to Keep Adequate Records*

Sidel and Levy assert that the military's keeping inadequate records during the Persian Gulf War was inexcusable. Whether excusable or not, this was a mistake. Accordingly, it now has been corrected.<sup>87</sup> Ironically, one of the reasons adequate records weren't obtained at this time was the fear that this record-keeping would fuel the misperception that the use of preventive agents was for the purpose of research, not treatment. This is, of course, the same misperception that Sidel and Levy had. Despite

their misperception, their challenge on recordkeeping was of value. The lesson for military physicians in the future that Sidel and Levy's challenge initiates is this: To the extent possible, military authorities should do what they know is medically best for soldiers, regardless of their fears about how the public may respond. In this case, this would have meant the military's keeping optimal records, regardless of how the public and even experts such as Sidel and Levy might have viewed this.

### *Imposing Immunization for the Good of the Patient*

The authors use vaccination of soldiers as an example of overriding patients' wishes. They agree with requiring immunizations in "civilian public health practice to protect others beyond the individuals immunized, as in the case of an infectious disease spread from person to person." The intention here is to protect society from the harm of having many members of that society die from the infectious disease. The community has the "need and the right to protect [itself] from the spread of known preventable diseases." They also agree that the wishes of the individual sometimes have to be subordinated to the needs of the society. Civilian quarantine is an example of subordinating the wishes of the individual to the needs of society. Civilian physicians in these quarantine situations may need to be involved in restricting the rights of individuals by placing the needs of society above the wishes of the patient.

However, they disagree with requiring immunizations for the "good of the fighting force" for diseases "not spread from person to person." If one were to equate the military (the "fighting force") to society, their argument is valid—involuntarily treating an individual for a condition that cannot affect society is substantively different from protecting society from infectious disease. Soldiers' not being immunized can, however, affect both the military and society. It can result in widespread loss of lives within both.

In the military case to which the authors refer (anthrax vaccination), the soldiers, the military, and society can and should be protected. If the military is unable to protect the society because a significant proportion of soldiers were incapacitated by illness, the basic function of the armed forces has been lost. If, as we agree, the society should be protected, the analysis changes dramatically. To protect society, it may be necessary for soldiers to take measures to

protect themselves or to increase their effectiveness regardless of their individual views. Vaccination to protect soldiers from a biologic weapon (inhalation anthrax) is an example of society's appropriately requiring soldiers to take a measure that should help protect them during combat.

### ***Battlefield Psychiatric Triage***

Sidel and Levy believe that when soldiers have combat fatigue, military doctors should do what is best for soldiers. They could. This would involve their sending such soldiers back from the front or possibly to the United States. If they did this these soldiers would remain alive because they would not be reexposed to the risk of dying during combat at the front. This is true, however, of every soldier. If relieved from combat duty, every soldier would then escape harm's way.

Their analysis of battlefield psychiatric triage is flawed significantly. They ignore the reality that if military physicians relieve soldiers who experience combat fatigue from further combat duty, there is great risk that innumerable other soldiers, consciously or unconsciously, will also develop combat fatigue and, thus, follow suit so that they, too, can escape the risk of death. Unless Sidel and Levy are willing to accept an enemy's prevailing as a result of this, they can't argue logically that military physicians should allow this risk.<sup>88,89</sup> Military physicians have no choice but to give these soldiers the expectation that they will return to combat. This may be extremely difficult psychologically for many military doctors because it requires them to be coercive. Their doing this, however, also concomitantly reduces soldiers' risk of having greater subsequent psychiatric morbidity because of survivor guilt. Thus, if these soldiers survive combat, they should benefit.

Military doctors know that if they allow stressed soldiers to escape combat there is this extraordinary risk of opening up the floodgates to other soldiers experiencing combat fatigue. These doctors also know that if these soldiers return to duty and survive, their likelihood of developing worse symptoms due to survivor guilt will be reduced. Both of these *awarenesses* may help reduce the traumatizing effect on themselves of their having to coerce soldiers in this manner. This shows how military careproviders having an answer to Sidel and Levy's arguments may help them retain their sense that they are acting with moral integrity. It may also reduce the potential emotional turmoil of their having to act in exceptional ways. They, like the soldiers

they must send back to the front, are also experiencing additional emotional turmoil for the sake of society. Having this knowledge may, in fact, rightly result in their believing that they are taking not only a permissible but also the highest moral road that they could take.

### ***Failing to Provide Care to Others***

Sidel and Levy contend that military doctors must be informed of their obligations under international conventions and then meet these obligations. They are right. Prisoners of war (POWs) are, for example, no longer enemies but merely humans. The Geneva Conventions do not permit military physicians to treat their own soldiers first and later treat POWs if POWs have more severe injuries. They can't do this even when treating their own soldiers first would further their own military's mission. Yet, violating this obligation to treat POWs equally is precisely what many military doctors now state they would do.<sup>90</sup>

Sidel and Levy also contend that military doctors should treat civilians almost equally. This may be ethically warranted, but it is not required of US military physicians under international law because the United States has not agreed to this aspect of the conventions.<sup>91,92</sup> The United States would not agree to subscribe to do what in reality it anticipated might prove unfeasible or it might be unwilling to do: to provide sufficient medical resources in another land to offer US soldiers, POWs, and civilians equal treatment.

It could be argued, as Sidel and Levy imply, that all should be treated according to their need on the ground of justice. This would treat all patients—soldiers, POWs, and civilians—equally. This would mean, however, that if resources were inadequate to treat all these patients' major medical needs, large numbers of injured US soldiers who otherwise could be treated would not be. They would remain untreated, at least for some time, and possibly experience permanent morbidity or even die. This could undermine soldiers' morale and possibly affect the likelihood of their achieving victory. Their morale also could be adversely affected when military physicians treat POWs equally. Among the reasons why military physicians must treat POWs equally is the fact that if US soldiers are captured, they can only expect enemies to treat them equally if they will do this themselves. This rationale does not apply to civilians.

Treating soldiers, POWs, and civilians equally could, in addition, undermine the present implicit



promise made to all soldiers to give them the best medical care possible. If the United States agreed to this and as a result, US soldiers would be more likely to sometimes go without care or without care for a longer period of time, this promise made implicitly now would be changed, eliminating this value as an important morale concern.

Sidel and Levy contend (and military doctors themselves state<sup>90</sup>) that although military doctors are taught to treat POWs and their own soldiers equally, this training knowledge has had inadequate effect. Here, then, is another instance in which the argument for a new structure that would lead to a better ethical result is exceptionally strong. Military doctors not treating POWs equally could, for example, be made a criminal offense, resulting in such physicians facing court-martial. Further, military doctors could be required also to report others who do not treat POWs equally, just as civilian doctors must report child abuse. This example is not just the strongest case Sidel and Levy make for structural change; it is the strongest case for its being needed now.

### *Using Medicine as a Weapon*

Using the example of Dr. Howard Levy, Sidel and Levy declare that military physicians should not use their medical skills to exploit civilians in occupied territory to win wars by winning over these patients' minds and hearts in this way. There is, perhaps, widespread ethical agreement among ethicists, if not civilians, on this point.<sup>93</sup> Ethicists particularly are likely to perceive and be concerned that military physicians not use their medical skills for political purposes to further military goals. This is for two main reasons. First, military physicians doing this exploits these individuals' vulnerability and risks using them primarily as means to the military's ends. Ethically, using persons in this way is generally prohibited. Second, it is implausible that their doing this will alter the outcome of a war.

However, military physicians can treat patients in occupied territories as ends in themselves. They could treat them, for example, on the basis of their most urgent medical needs. This would be not only nonexploitative and ethically permissible, but ethically praiseworthy. Still, some winning of these civilians' hearts could occur. This ground for military physicians treating civilians could, then, be misused. Here, as Sidel and Levy suggest, a structure might be warranted to prevent this. For example, a neutral body could be established to insure that medical care is delivered under these circumstances on

the basis of patients' needs as opposed to what might be most politically successful in winning over the hearts and minds of the people. For instance, dramatic treatments such as plastic surgery, which was carried out primarily for this political purpose during the Vietnam conflict, might be precluded.<sup>94</sup>

### *Torture*

Sidel and Levy argue that military doctors should not only not participate in torture but should be required to report it. They are right.<sup>49,95-97</sup> There are a range of such abuses possible. This range includes giving succinyl chloride to paralyze prisoners' breathing at one extreme and withholding medical care or food and water at the other.<sup>98</sup> Some still are allowed. During interrogations, for example, water may be withheld routinely. Prisoners might be threatened with torture that is actually prohibited, but the prisoners wouldn't know that. The conventions are clear. Psychological torture (even by threatening to use physical torture) is absolutely prohibited.<sup>96</sup>

What if, however, with the use of torture hundreds of thousands of lives could be saved? This might, for example, be the outcome from an air-based anthrax attack. Again, that torture would prevent this would be highly speculative. Thus, although the value of saving so many persons' lives is self-evidently important, unless the most exceptional circumstances can be proven to exist, this is universally proscribed. At a certain point, if any means can be used to save a society, the values to be preserved are no longer worth fighting for. For this same reason, even if most exceptional and extenuating circumstances can be proven, this may not be enough to morally justify any kind of torture.<sup>96</sup>

It may presently be unclear, however, whether ethically all such abuses should be absolutely precluded as they have been in the past. According to one view, there is no new reason the previous blanket prohibition should be changed. Conversely, some may argue that terrorists pose a risk now that is unprecedented. Terrorists, for example, are not bound by inherent ethical limitations, are dispersed globally, and have access to biological and chemical weaponry. Still, the risk may not differ qualitatively, or perhaps even quantitatively, from prior risks, such as that posed by the genocidal policies of Nazi Germany.

If torture still should be precluded absolutely, this is another instance in which, as Sidel and Levy contend, structures could bring about far better moral outcomes. As already illustrated most strongly in regard to POWs, they could help insure

that physical and mental torture doesn't occur. Even if there is some new ground that could permit the use of torture to some degree when it seems certain this could save hundreds of thousands of persons' lives, new structures still should be necessary to insure that the prerequisite extenuating circumstances are met.

### **Moral Protest**

Sidel and Levy contend that military doctors should be allowed to protest. Military doctors, as all soldiers, can and should refuse to carry out illegal or immoral orders.<sup>99,100</sup> This is established in military law. Soldiers, unlike civilians, however, should also have to sacrifice certain options. If this were not the case, the effectiveness of the military endeavors could be fundamentally undermined.<sup>101,102</sup> This could result in catastrophe. Military physicians, as all soldiers, can and should express their moral convictions, first through official channels. Later, it may make sense for them to risk court-martial.<sup>99</sup> Their ultimate protection lies within civilian courts.

There are two critical points about which Sidel and Levy may be mistaken. First, there is no reason military physicians should be allowed to protest more than other soldiers. Although they have their medical obligations, all persons have personal beliefs that may warrant greater allegiance. Second, and built upon this, military physicians, like all soldiers, may rightfully be limited in the freedom they have to protest for much the same kind of reason military physicians must treat soldiers with battle fatigue with three hots and a cot. If soldiers were permitted to protest in whatever way and whenever they want, once some did, others might follow suit in droves. As with combat fatigue, consciously or unconsciously, they might do this for secondary gains. This could result in the military's failing and enemies then being able to prevail.

They cite as an example here the experience of Dr. Yolanda Huet-Vaughn. She refused to serve in a specific war on the ground that this would violate her moral conscience.<sup>101</sup> Her personal conviction, I believe, was wholly sincere. (In fact, at my invitation she addressed the medical students taking their required course in military medical ethics at the Uniformed Services University for the Health Sciences and discussed with them her views and reasons for her refusal.) But the point here that Sidel and Levy overlook is that, due to reality-based limitations, it may be that whether or not she was sincere can't matter. Why? It would no doubt be morally right to allow all those with sincere objections

to follow their beliefs. Yet, allowing this would open the door to all doctors and soldiers who decided they wanted to get out of the military to do so, regardless of obligations they have incurred. If the military has invested substantial resources in physicians' education or training, physicians in great numbers could, having reaped these benefits, then assert that they can no longer serve on the basis of their moral conscience. This is a situation in which there are limited options. Because there is no way of determining who has genuine moral scruples from who does not, there are only two options: Leave the system open to being exploited or leave some soldiers to suffer adverse consequences despite their having genuine moral convictions.

Still, the kind of structure Sidel and Levy suggest is needed here may play a most important role. Military physicians', as well as soldiers', right to protest publicly and to respond on the basis of their moral conscience should be impartially assessed. Although civilian courts may do this in time and in some cases, this ultimate remedy may be too infrequently offered and difficult to achieve to fairly treat military doctors and other soldiers who are protesting. A structure allowing more immediate and accessible impartial review may improve this.

A perhaps greater problem a new structure may help correct is the risk that those military persons judging the protesting of military physicians will be biased. This is a concern Sidel and Levy raise in regard to many contexts that is entirely valid. A more impartial body with more civilians to assess these cases could be optimal. Yet, this being an improvement presupposes that civilians will indeed be more impartial, but this may not at all be the case. Civilians denied Huet-Vaughn, for example, the right to continue to practice medicine though all evidence indicated that she was not only competent but also exceptionally committed to her patients. Civilians' impartiality may appear to be a better solution than it might actually be. Again, both military physicians' and other soldiers' interests may be best met in this regard also by being as fully informed as possible, prior to entering the service, of the consequences they could confront. As discussed previously, structures might be established to insure that this occurs.

### **Overview**

Sidel and Levy have compiled a list of what they believe are wrongs that have occurred and may continue to occur in military medicine. They believe the structures allowing these wrongs should be

changed. Some of these changes have been made already. Others can and should be. Since September 11th, 2001, there are heightened concerns and thus ethically, the principles underlying military medical practice may or may not be the same.

Two general principles, however, still prevail. First, there are some practices that should still be carried out absolutely. Prisoners of war should, for example, be treated equally. Captured enemies probably should not be physically or mentally tortured to any extent. Otherwise, the notion underlying international conventions that war, though horrible, can be humanized to a limited but significant extent, must be discarded. Second, there are some compromises that must be made, both by soldiers and the citizenry at large. These compromises have been and always will be necessary for countries to prevail when they fight just wars. An example given here is requiring soldiers to take agents to help protect them from the effects of biological and chemical weaponry.

Making these sacrifices may be painful. An example involving military physicians is their having to endure the pain of giving highly distressed soldiers three hot meals and a cot and sending them back to duty where they may die. Military physicians should, however, find this pain offset, at least to some extent, by the pride they should rightfully feel as a result of what they do. The challenges Sidel and Levy offer and the responses such as those I have offered here are intended to further ethical thinking regarding military medicine. In addition, it is hoped that this discussion will benefit military physicians by giving them a more rational basis for feeling this pride. This, again, is a goal of this entire textbook, as well.

What, then, is to be said of Sidel and Levy's overall argument that it is unethical for physicians to serve in the military as doctors and soldiers at the same time? If they are not right, why not, and why, in light of their claim, should military physicians still feel immense pride?

This same claim was made and hotly debated a century and a half ago when it was proposed that neutral volunteer careproviders aid the sick and wounded during war. One person speaking for this practice stated, "We have in view but one object, and that is: the neutrality of ambulances and sanitary personnel of belligerent armies. This is all. We ask nothing more than this."<sup>103(p33)</sup>

However, at the International Congress of Geneva of August 1864 it was unanimously determined that this would not occur. The grounds for this decision were, however, ethically, far from compelling. It was

thought that leaving the care of soldiers of both sides to "volunteers not subject to military control" would "very possibly lead to incessant practical difficulties in field hospital administration" and to "disputes and embarrassments with foreigners."<sup>104(p6)</sup> Are there, then, stronger arguments for or against this neutrality now?

Sidel and Levy's major basis for wanting neutrality is now, as it was then, that military physicians cannot be sufficiently unbiased because of the tendency to identify with the unit and the mission. This, too, has been acknowledged by others not only in past but recent times. Daniels gives, for instance, this example involving a military psychiatrist. He asked him about the conflict of sending soldiers back to possible death. The psychiatrist said, "'No, you can't put that in the paper, you must call it arduous duty.'"<sup>85(p4)</sup>

Examples involving POWs show unequivocally that unethical practices can occur as a result of overidentification. Gordon Livingston, a West Point graduate who served in Vietnam as a military physician, states, "one night when [wounded Vietcong and North Vietnamese were brought to his regimental command post for questioning] I protested to my commanding officer that a wounded soldier might die if he were not promptly evacuated, I was told to 'just keep him alive for a few minutes so we can question him. After that he can die; it doesn't matter to me.'"<sup>98(p268)</sup> Carter's findings<sup>90</sup> regarding the sizable percentage of US physicians in the Persian Gulf War who said they would treat POWs unequally suggest a fearful possibility that given this same response, they would comply.

Clearly, physicians must treat soldiers during combat. Were they to not do this, this would involve society's violating soldiers' dignity unconscionably because the society would be using and regarding soldiers solely as means, not ends. Would, however, rendering physicians neutral, as Sidel and Levy claim, benefit soldiers and particularly others to the extent that this would be preferable? If the kinds of unethical practices Sidel and Levy describe are common, as opposed to the exception, it is plausible that they are right. Most who have been in the military would, however, argue adamantly that this is not the case. (See, for example, the response by Navy Commander Dominick R. Rascona, himself a physician, that follows this discussion.) They would claim that soldiers trust and rely greatly on military physicians because they share both common goals and personal sacrifice.

A study of military psychiatrists supports this. Seventy-four percent said that they believed that

limitations regarding confidentiality in the military had little or no effect on their ability to treat patients.<sup>105</sup> It is possible these psychiatrists saw little or no effect because they, like the psychiatrist interviewed by Daniels, were biased, but the high percentage of psychiatrists reporting this lack of effect make this possibility less plausible.

Further, most would claim also that notwithstanding Carter's findings, military physicians above all others insist on giving POWs and civilians in occupied territories optimal care. The example given earlier in which Dr. Livingston refused to follow his commander's instructions is such a case. (Livingston, too, has been a guest speaker to the second-year medical students in the Ethics Course each year for the past several years at the Uniformed Services University of the Health Sciences (USUHS). He has emphasized not only that military physicians can serve this unique role of enforcing the highest vision of medical practice during combat, but the importance that they do so.) I have found that military physicians have been the ones to contact me on several occasions, not because they were allied with military interests but to gain advice on protecting the interests of their patients. These patients have been both allied soldiers as well as wounded enemy prisoners of war. For example, I recently received a call from a military physician who was concerned that Taliban forces now held as prisoners receive equal rights to confidentiality during physician interviews as other patients, to respect their dignity and the sanctity of the patient-physician relationship as well as benefiting from treatment to the maximal degree that they could.

Dr. Howard Levy, whom Sidel and Levy mention, is another example. He objected to the military's using medical care as a means of pursuing military goals. Subsequent to his raising this concern, others have come to recognize the importance of military physicians not exploiting the vulnerability of patients in occupied territory for political or military purposes.<sup>93,94</sup>

When physicians serve in the military, they bring with them such medical tenets as those in the Hippocratic Oath that give highest regard to patient interests. Whether the "physician first, soldier second"

general paradigm presented in the concluding chapter of this text is or is not ultimately theoretically justifiable, as a matter of practice this paradigm is followed by most military physicians unless they encounter the extenuating circumstances requiring that priorities be given first to military necessity. With the exception of situations involving military necessity, military physicians, in the same manner as Huet-Vaughn, Livingston, Howard Levy, and even Sidel and Levy actually fight for soldiers' and others' [civilians and POW's] rights and interests as patients. Military physicians are the leading proponents of both the highest moral roads and needed ethical change.

Ultimately the necessity for military physicians to be members of their own units is their critical role in carrying out the military mission. As discussed throughout this textbook, military physicians must carry out such unusual and personally agonizing tasks as military medical triage, treating soldiers with combat fatigue with three hots and a cot, and insisting they take anthrax vaccinations if wars are to be won. Wars must be won if our country (and possibly many or even all others) is to be protected from unthinkable outcomes, as the events on September 11th most recently illustrated. These recent terrorist attacks in the United States reaffirm this reality. Enemies may use any and all means to harm other nations and persons they wish to destroy. These attacks should remind us that the United States and other countries are all vulnerable. All countries need the best protection that could plausibly be offered.

This best protection unequivocally requires armed forces having military physicians committed to doing what is required to secure victory. Regardless of whom we should protect in the future, ourselves or vulnerable persons in other countries, to most protect ourselves and others, we need the exact opposite of what Sidel and Levy prescribe. As opposed to needing neutral physicians, we need military physicians who can and do identify as closely as possible with the military so that they, too, can carry out the vital part they play in meeting the needs of the mission.

[Edmund G. Howe, MD, JD]

## THE MORAL OBLIGATION OF UNITED STATES MILITARY MEDICAL SERVICE

The profession of the United States military medical officer is one of moral necessity, regardless of the exigencies or conflicts such an individual must endure. Intrinsic to this argument is an assumption of just war. This extremely important point—upon which all others to follow base their

ethical validity—is a contentious and difficult one. Skeptics of United States foreign policy may therefore be unconvinced regarding the ethics of US military medical service. These skeptics will remain unconvinced regardless, but countering such criticism is beyond the scope of this essay. (Chapter 8,



Just War Doctrine and the International Law of War, discusses the assumption of just war in detail.)

### **The Mandate of the Military Physician**

Military medical service in the United States is ethically sound based upon the following simple predicate: If American democracy can be shown to be ethically sound, so must be the assumption of necessary duties taken up in its defense. This would include the general notion of military medical service. No doubt physicians participating in such service can be expected to face ethical difficulties, perhaps even true moral hazard—ethical conduct within the “total system” of the military may indeed be difficult. But claims that the mere shunning of such service is somehow superior to performing it must be shown to lack moral credibility.

The overriding principle of military service in the United States is to support and defend its Constitution, a set of values purporting freedom and dignity for all people. These values are generally accepted as fundamentally moral, something that all military officers, enlisted personnel, and military medical personnel must be assumed to know. Regardless of the importance of obedience to command structure, people do not voluntarily join the US military in order to obey orders. They obey lawful orders to preserve a society based on the Constitution. Medical personnel may indeed be viewed as integral to the capabilities and effectiveness of military power, but this military power will exist with them or without them, as it did for the centuries before medicine was, in any meaningful way, effective. I submit that the vast majority of American military medical officers enter the service with this knowledge and in fact dedicate themselves initially to nothing more than the desire to minimize harm to their countrymen who will become potential and actual military patients.

### **Imperative for a Prepared Medical Officer**

Following from the doctrine of just war, if there can ever be just and ethical soldiers, it follows that there not only can but also must be just and ethical military physicians. If soldiers of a just war are to be cared for in an optimum manner, then their physicians must meet the same levels of competency as their military commanders. Such competency cannot be expected from civilians (“amateurs,” to quote Madden and Carter in Chapter 10, *Physician-Soldier: A Moral Profession*) when it comes to the unique contingencies of modern warfare. Anything

short of such competency should be considered egregiously unfair to all soldiers (especially those first into battle) whose lives would be unnecessarily lost on the learning curve of an ill-prepared military medical system. Such incompetence should therefore be considered unethical and unacceptable. Details of how the US military should actually accomplish the legitimate goal of maintaining an ethical permanent military medical officer corps likely raises a second set of concerns, but the principle that such a corps must exist in some form is logical.

Sidel and Levy state that all-out war is “extremely unlikely for a country like the United States,” (and therefore) “to subordinate the rights of patients and the responsibilities of physicians to prepare for such an improbable event is unwise and unnecessary.” Can such a position be logically countered? The degree of readiness required, desired, or attainable during peacetime may be debated, but one situation will obtain: either a country will or will not be prepared at the time it is threatened or attacked.

Regardless of one’s world view, it should be recognized and understood that warfare, whenever it occurs, represents a breakdown of civil society. Although international codes such as those of Nuremberg and Geneva may attenuate some of the horrors of war, they do nothing to prevent it. When the United States or any other purportedly good nation goes to war, it must be assumed that no good path is being taken, only one that has been decided upon as the lesser of evils. When this regrettable circumstance obtains, military medical officers, assuming personal risk as well as moral hazard to lessen overall harm, act not only ethically but also nobly. They answer a call to legitimate duty. Their role is simply to lessen harm that will otherwise occur, with or without their participation. The recognition that someone will be called or required to answer this call to duty cannot be overemphasized. Unless the entire society embraces complete pacifism, warfare, and especially defensive warfare, is not an optional activity. Physicians will need to act. Society should expect them to be prepared and ready.

### **The Moral Nature of Military Medicine**

Three chapters of this textbook directly address the moral nature of medical practice within the modern American military (Chapter 10, *Physician-Soldier: A Moral Profession*; Chapter 11, *Physician-Soldier: A Moral Dilemma?*; and Chapter 12, *Mixed Agency in Military Medicine: Ethical Roles in Conflict*). In Chapter 10, Madden and Carter most directly ad-

dress the moral nature of medical service as a military officer of the United States. My argument, however, proceeds further, to suggest that such service is even mandatory. Madden and Carter say, "Without security neither individuals nor their society can benefit from the profession of medicine." If this is true, then American medical professionals have not only the choice to serve ethically but also the duty to do so if they are to truly serve humanity as they profess is their ethos. There is a moral imperative for such service in modern society. To develop this concept, I shall briefly review the central arguments of Chapters 10, 11, and 12, which may be viewed respectively as justifying, disallowing, and rationalizing or "operation-alizing" the ethical basis of military medicine. I will then discuss legitimate duty.

### **Differing Views of the Ethical Basis of Military Medicine**

Chapters 10 and 11 actually consider the possibility that medical practice within the United States armed forces is inherently unethical. Drs. Sidel and Levy come to this conclusion, supporting their argument with interpretations of the manner in which a number of specific ethical dilemmas were resolved in the United States in the latter part of the 20th century. Drs. Madden and Carter provide a direct counterpoise. By exploring the inherent ethos of the professions of arms and medicine, they find that not only are the two not in inherent conflict, but that they are in fact very similar. Both are composed of healers and protectors nobly seeking to diminish human suffering. Importantly implicit in their argument for the inherent morality of military medical service, however, is the prerequisite of just war. Their argument cannot, therefore, be applied to all military medical officers under all circumstances.

In Chapter 12, Dr. Howe provides an analysis and explication of the nuances and subtleties of mixed-agency. Central to his analysis is the legitimization of "role-specific ethics." With some understatement, though, he seems to imbue the modern American military medical officer with a sense of discretion that might be contested by senior leadership and policy makers. He appears to conclude that the moral integrity of practicing military clinicians is preserved because many of the expressed policies of the US armed forces are in fact paper tigers, not really expected to be followed by its doctors.

Sidel and Levy claim a contradiction between the overriding ethical principles of medical practice and military service. Their argument in favor of ethical incompatibility identifies the overriding ethical

principles of military service as "concern for the effective function of the fighting force" and "obedience to command structure." In a narrow sense this is true, but obedience to command structure is more appropriately considered a logical requisite for military effectiveness, just as sterile technique is a logical requisite for safe surgical operations. However, it should be noted that "obedience to command structure" in the sense of "absolute obedience in the armed forces of the United States" applies only to lawful orders. "Absolute obedience" per se is not an overriding principle of American military service. On the contrary, obedience to questionable orders is more likely than not to bring an officer trouble, especially if such obedience conflicts with international law as found in the Geneva Conventions (for example, wanton destruction or breaching human rights of prisoners).

### **The Necessity of Military Medicine**

The role of the United States military medical officer arises from necessity. One does not require a sophisticated understanding of history to acknowledge that the world is neither a naturally fair nor abiding place. Political power vacuums and lack of good government can lead to the emergence of ruthlessness and violence. Despite their own subsequent qualification, Sidel and Levy's reference to a fantasy end to warfare promoted by broad refusal of the medical community to "support war efforts" must be criticized for its fundamental naiveté. Warfare was waged for century upon century without medical support of any meaningful effectiveness. History has shown no proclivity toward attenuation or avoidance of war on account of a belligerent's lack of intrinsic medical capability.

This is not to criticize Sidel's, Levy's, or any other physician's work toward the abolition of war—such work as citizens and as members of the human family is fitting and commendable. However, the claim of an ethical superiority of such work from physicians as physicians must be considered suspect, as though any one group could claim ethical superiority. If one were to heed or value one group over another, why not the mothers who provide the soldiers and the victims? Or the architects who provide the buildings that are destroyed? The children who become parentless? The teenagers who become emotionally flat (ie, flat affect) or infected with hatred? Likewise, what of the ethical roles of arms manufacturers and their financial backers, both direct and indirect? The suffering of humanity is broadly painted by the brush of war; all humans

are involved regardless of their particular societal skills. That the physician has a special rank or sanctified role in the important work of war prevention is unconvincing.

In Chapter 10, Madden and Carter certainly recognize the necessity of military medical service. However, their claim that “the physician, as a citizen, has the same rights and obligations to act in the defense of society as does any other member of society,” appears to be qualified to time of war. Although they clearly defend the lifelong dedication to mastering the complex set of skills required by the professional soldier (“war simply became too complicated for amateurs”), they do not sufficiently defend medical military service during peacetime. Such service is justified for the same reasons, and its fundamental morality must therefore be emphasized. The morality of such service as an assumption of legitimate duty has been insufficiently addressed. The main reason Sidel, Levy, and others reach either erroneous or overly broad conclusions that would seem to preclude ethical military medical practice, is because they overlook or perhaps even reject the virtue of duty.

### **The Ethical Nonparticipant: Physicians’ Dubious Role in Preventing Warfare**

Many authors apparently cite a “special responsibility” of healthcare professionals, physicians in particular, to attempt to prevent injury and death. The organization Physicians for Social Responsibility, for example, is chartered on the principle that physicians should take specific actions to prevent nuclear war. Sidel and Levy admit, however, that even consummation of their fantasy of global refusal for all military medical service would still not likely result in the cessation of war. What condition then (because ethical behavior does require some sort of action or specific inaction) is more likely to ameliorate the harm of war: a professional medical corps that has been thoroughly trained regarding the dilemmas it might face and has been given time to reflect and prepare, or an ad hoc muster of civilian physicians haphazardly collected at the time of conflict? If medical ethics in general are to be viewed as anything beyond the vague negative charge to do no harm, is not the most important corollary that, given harm, physicians are morally compelled to act to minimize it? Given that destruction, killing, and moral hazards associated with breaching the autonomous rights of soldiers as patients are going to occur with or without intervention by medical officers, is it in any way moral to leave

whatever medical work there is to be done to unprepared physicians who have no concept of military training, priority, and necessity?

Viewed another way, assuming there is an ethical superiority among physicians who would consider nonparticipation in military medicine, how ethical is their withholding their service from a system so badly in their need? Given the exigency of war and assuming that only just wars will be fought, such “opting out” in favor of personal moral conscience is, at best, a shirking of legitimate duty. Indeed, if physicians as a group do have any sort of “special responsibility” (which is itself a debatable issue), and if soldiers are indeed a “disenfranchised group,” what ethical basis supports withholding care from individuals who arguably need it most?

Whether or not military medicine can or should provide all aspects of the care of soldiers is a large issue. Certainly much of this care, especially for combat soldiers, must come from within the military. Can the military meet the medical needs of its service men and women in an ethical manner? The military’s medical school, the Uniformed Services University of the Health Sciences, Bethesda, Maryland, was among the first in the nation to institute a full semester course devoted to ethics. This course, now well over 20 years old, introduces and invites discussion over all aspects of medical ethics, especially those related to combat and the breaching of human rights. The majority of today’s military medical officers, however, are educated in civilian universities. One could argue that this majority, which has not had the basics of their medical or ethical training within the military, may indeed be another moral strength of the system. It is a strength because it ensures that the medical corps of the military reflects the diverse values of the society that the military serves. I would add that the simple existence of this addresses at least one lament of those who criticize the honorable and necessary principle of maintaining a uniformed corps of physicians.

### **Areas of Concern**

Sidel and Levy of course serve the useful and necessary function of reflecting light onto difficult and important issues. They point out that many ethical conflicts, or “opportunities for moral hazard,” arise between the humanistic values of medicine and the operational requirements of military operations. The issues they raise are valid to consider, including the possibility that military medical service is fundamentally immoral. Significant consideration is therefore due what I consider Sidel

and Levy's most legitimate concerns: the ethical issues that may subtend from a military medical officer's tendency toward unit identification and those that arise from "voluntary obligation."

### ***Unit Identification***

Unit identification is the linchpin of military camaraderie and effectiveness. Such identification is supported by all branches of the military and appears to have increased in recent years. The Navy, for example, awards physicians serving with surface ships a uniform insignia device very similar to the one worn by line surface warfare officers after appropriate qualifications are met. One must attempt to distinguish between the normal, natural, and healthy identification an individual medical officer (MO) can be expected to make with other individuals with whom he serves, and the possibly dangerous (unethical, according to Sidel and Levy) overidentification the MO may develop toward these same colleagues or the actual military mission of the unit with which he serves. This must be admitted to be a fine distinction. Bonding with individuals with whom one goes into harm's way and upon whose competencies one's life depends may be expected to become strong. The MO, however, faces moral hazard when he too thoroughly identifies with either his "band of brothers" or the mission. Sidel and Levy's "solution," however, that physicians should avoid military service on the basis of this moral hazard, is not a solution at all. Although correctly identifying that significant moral hazard exists within military medical practice, they rather ironically provide an example that sufficiently contradicts their conclusion (that military medical service is unethical). Acknowledging that "[t]he field commander may not understand the perspective or the needs of the health professional or may not have time to evaluate the ethical dilemma the health professional faces," they continue to explain that the "total institutional" nature of the military coupled with such an inadequate moral assessment by the field commander may result in limiting moral action by subordinate physicians. This is far from being a case against ethical military medical service. Even if military medical service could be found to be ethically inferior to some other ideal, given the grim reality that warfare occurs, the legitimate ethical demand to lessen harm requires that this form of service exist. The adequate preparation required to fulfill the ethical obligation of competency then requires a permanent, dedicated, trained, and ready military medical corps.

Even conscripted soldiers should likely be afforded this same degree of respectful treatment; volunteers enticed to duty in modern America are arguably so entitled with even greater ethical validity.

### ***Voluntary Obligation***

The ethics of the manner in which individual medical officers are recruited and maintained in the United States military does not appear to be resolved. This is, in this author's opinion, a symptom of the weak ethics upon which an all-volunteer force is based in the first place. Currently, almost all medical officers enter military medical service on some sort of scholarship that provides education for a delimited time of service. In fact, this is a system of indentured servitude because at no time may a military physician choose to "opt out" and repay the government in any way other than military service. Faced with requisite career steps for advancement and promotion, the notion of obedience required of all members of the armed forces and discussed by Madden and Carter (Chapter 10) cannot be overemphasized. Underappreciation of this essential of military service has apparently been overlooked by some modern officers who have clashed with their leadership regarding legal orders. This is not to say that all medical officers are ethically compelled to do everything they are ordered to do if, on a case-by-case basis, they feel strongly enough to oppose their leaders, especially during peacetime. They simply must be prepared to deal with the consequences, including the possibility of jail or dishonorable discharge or both. This is true, however, of all military officers. The "special status" ascribed to physicians in this capacity is specious. Of note it must be recognized that in wartime the "opting out" of a physician who is an integral part of a military force may significantly detract from the safety and well-being of that force and its fighting ability. Such behavior during wartime should therefore be expected to be punished severely. Attention to the entire matter of the "voluntary obligation" should be an area for further study.

### ***Summary***

Fundamental moral principles centered around the fulfillment of legitimate duty refute the main conclusion by Sidel and Levy that military medical service in the United States in 2002 is inherently unethical. I agree with the importance of the issues these authors raise, but their conclusion that the shunning of such duty is moral is unsound. Their



contention that apparent conflicts are insurmountable or are, in fact, resolved unethically in modern America is equally unsound. This is discussed in detail by Dr. Howe.

Society labels the deaths of soldiers in the endeavor of war as the supreme manifestation of duty, honor, and sacrifice. Warfare involves the purposeful destruction of human endeavor, natural resources, and previously healthy, often innocent, lives. What is important ethically is that the societal and military ethics tolerating such abhorrent behavior be correct and follow those of a just war

doctrine. The notion that medical ethics may be somehow superior to (all) others, including just war doctrine, would seem to be at the heart of the problem of the legitimacy of military medicine. Overlooked by a notion of the superiority of medical ethics is the virtue of legitimate duty. If the cause is just and the society supports it, then some members of the society will serve as soldiers and some doctors will serve as medical officers. It is not a question of if; it is only a question of who will subject themselves to the burden of this service.

[Dominick R. Rascona, MD, FACP, FCCP]

## REFERENCES

1. Bellamy RF. Conserve the fighting strength. *Mil Med.* 1988;153(4):185–187.
2. Letterman J. *Medical Recollections of the Army of the Potomac*. New York: D. Appleton; 1866: 100. Quoted by: Rubenstein DA. Health service support and the principles of war. *Mil Med.* 1988;153(3):145–146.
3. Beecher HK. *Research and the Individual: Human Studies*. Boston: Little, Brown; 1970: 209–210.
4. Swan KG, Swan KG Jr. Triage: The past revisited. *Mil Med.* 1996;161(8):448–452.
5. Janousek JT, Jackson DE, DeLorenzo RA, Coppola M. Mass casualty triage knowledge of military medical personnel. *Mil Med.* 1999;164(5):332–335.
6. Bordes PA, Finan JL, Hochstim JR, McFann HH, Schwartz SG. *Desert Rock I: A Psychological Study of Troop Reactions to an Atomic Explosion*. Washington, DC: Human Resources Research Office, George Washington University. TR-1. February 1953.
7. *Desert Rock IV: Reactions of an Armored Infantry Battalion to an Atomic Bomb Maneuver*. Washington, DC: Human Resources Research Office, George Washington University. TR-2. August 1953.
8. Advisory Committee on Human Radiation Experiments. *Final Report*. Washington, DC: GPO; 1995.
9. Pechura CM, Rall DM. *Veterans at Risk: The Health Effects of Mustard Gas and Lewisite*. Washington, DC: National Academy Press; 1993.
10. Annas GJ. Changing the consent rules for Desert Storm. *N Engl J Med.* 1992;326(11):770–773.
11. Annas GJ. Protecting soldiers from friendly fire: The consent requirement for using investigational drugs and vaccines in combat. *Am J Law Med.* 1998;24(2–3):245–260.
12. Howe EG, Martin ED. Treating the troops. *Hastings Cent Rep.* 1991;21(2):21–24.
13. 21 CFR Part 50—Protection of Human Subjects; Section 23—Exception From General Requirements. US Food and Drug Administration. 27 January 1981, as amended 21 December 1990. Available at: <http://www.fda.gov/oc/ohrt/irbs/appendixb.html>. Accessed: 7 September 2001.
14. Lamiell JM, Grabenstein JD, Vander Hamm DG. Review of the 1995 Food and Drug Administration/National Institutes of Health public forum on informed consent in clinical research conducted in emergency circumstances. *Mil Med.* 1995;160(12):599–603.
15. Symposium: In case of emergency: No need for consent. *Hastings Cent Rep.* January–February, 1997.
16. Auster SL. Confidentiality in military medicine. *Mil Med.* 1985;150(7):341–346.

17. Steinfels MO, Levin C, eds. Conference transcript: In the service of the state. The psychiatrist as double agent. *Hastings Cent Rep.* 1978;8(2, Special Supplement): 8.
18. Presidential Advisory Committee on Gulf War Veterans' Illnesses. 1997. Special Report, 31 October 1997. Available at: <http://www.gwvi.ncr.gov/txreport.html#summary>. Accessed 6 May 2002.
19. Myers SL. 1997. US armed forces to be vaccinated against anthrax. *New York Times*. 16 December 1997:A1.
20. Brachman PS, Gold H, Plotkin SA, et al. Field evaluation of a human anthrax vaccine. *Am J Public Health.* 1962;56:632–645.
21. Turnbull PCB. Anthrax vaccines: Past, present, and future. *Vaccine.* 1991;9:533–539.
22. Ivins B, Fellows P, Pitt L, et al. Experimental anthrax vaccines: Efficacy of adjuvants combined with protective antigen against an aerosol *Bacillus anthracis* spore challenge in guinea pigs. *Vaccine.* 1995;13(18):1779–1784.
23. United States Senate. *Is Military Research Hazardous to Veterans' Health? Lessons Spanning Half a Century*. Washington, DC: US GPO; 1994.
24. Ivins BE, Pitt ML, Fellows PF, et al. Comparative efficacy of experimental vaccine candidates against inhalation anthrax in rhesus macaques. *Vaccine.* 1998;16:1141–1148.
25. Pomerantsev AF, Staritsin NA, Mockov YV, Martinin LI. Expression of cereolysine AB genes in *Bacillus anthracis* vaccine strain ensures protection against experimental hemolytic anthrax infection. *Vaccine.* 1997;15(17–18):1846–1850.
26. Langmuir AD, Bregman DJ, Kurland LT, Nathanson N, Victor M. An epidemiologic and clinical evaluation of Guillain-Barré syndrome reported in association with the administration of swine influenza vaccines. *Am J Epidemiol.* 1984;119(6):841–879.
27. Poser CM. Neurological complications of swine influenza vaccination. *Acta Neurol Scand.* 1982;66(4):413–431.
28. Sloat B, Epstein K. Army misled troops who got vaccine in Bosnia. *Plain Dealer* (Cleveland, Ohio). 25 January 1998:1A, 18A.
29. Committee on Health Effects Associated with Exposures during the Gulf War. *An Assessment of the Safety of the Anthrax Vaccine [electronic resource]: A Letter Report*. Washington, DC: Institute of Medicine; 2000.
30. Ginburg Y. Sailors refuse vaccine. *Navy Times*. 20 April 1998:3.
31. Subcommittee on National Security, Veterans Affairs and International Relations, House Committee on Government Reform. *The Department of Defense Anthrax Vaccine Immunization Program: Unproven Force Protection*. Washington DC: US GPO; 17 February 2000.
32. Swann SW. Euthanasia on the battlefield. *Mil Med.* 1987;152(11):545–549.
33. Geneva Conventions of 1949. In: *Human Rights Documents: Compilation of Documents Pertaining to Human Rights*. Washington, DC: Government Printing Office, 1983.
34. Vastyan EA. Warfare: I. Medicine and war. In: Reich WT, ed. *Encyclopedia of Bioethics*. 2nd ed. Vol. 4. New York: Macmillan; 1978: 1695–1699.
35. US Department of the Army. *Treaties Governing Land Warfare*. Washington, DC: DA Pamphlet; 1956. DA PAM 27-1.
36. Declaration of Geneva. *World Medical Association Handbook of Declarations*. Geneva: World Medical Association; 1997.
37. Bourne PG. *Men, Stress, and Vietnam*. Boston: Little, Brown; 1970.

38. Garfield RM, Neugut AI. The human consequences of war. In: Levy BS, Sidel VW. *War and Public Health*. New York: Oxford University Press; 1997: 27–38.
39. Plutarch. *Lives*. Vol. 2. Perin B, trans. Cambridge, Mass: Harvard University Press; 1914.
40. Stacey J. The cover. *JAMA*. 1988;260(28):448.
41. US Department of the Army. *The Law of Land Warfare*. Washington, DC: DA; 1956. Field Manual 27-10.
42. US Department of the Army. *The Medal of Honor of the United States Army*. Washington, DC: Government Printing Office; 1948.
43. Bourne P. As cited in: Liberman R, Gold W, Sidel VW. Medical ethics and the military. *New Physician*. 1968;17:299–309.
44. Langer E. The court-martial of Captain Levy: Medical ethics v. military law. *Science*. 1967;56:1346, 1349.
45. Glasser I. Judgment at Fort Jackson: The court-martial of Captain Howard B. Levy. *Law Transition Q*. 1967;4:123–156.
46. Rosebury T. Medical ethics and biological warfare. *Perspect Biol Med*. 1963;6:312–323.
47. Sidel VW. Biological weapons research and physicians: Historical and ethical analysis. *PSR Q*. 1991;1:31–42.
48. Cilasun U. Torture and the participation of doctors. *J Med Ethics*. 1991;17(suppl):21–22. Cited in Moskop JC. A moral analysis of military medicine. *Mil Med*. 1998;163(2):76–79.
49. Bloche MG. Uruguay's military physicians: Cogs in a system of state terror. *JAMA*. 1986;225(20):2788–2793.
50. Goffman E. *Asylums: Essays on the Social Situation of Mental Patients and Other Inmates*. New York: Doubleday, 1961.
51. Greenberg J. Protesting tactics in West Bank, Israeli reservists refuse to serve. *New York Times*. 2 February 2002. A1.
52. Vest J. *Village Voice*. March 16, 1999; 44(10): 55–59.
53. Walzer M. *Just and Unjust Wars: A Moral Argument With Historical Illustrations*. New York: Basic Books; 1977.
54. Seabury P, Codevilla A. *War: Ends and Means*. New York: Basic Books; 1989.
55. US Department of the Army. *Conscientious Objection*. Washington, DC: DA; 15 May 1998. Army Regulation 600-43.
56. Blaustein M, Proctor WC. The active duty conscientious objector: A psychiatric-psychological evaluation. *Mil Med*. 1977;142(8):619–621.
57. Personal statement of Yolanda Huet-Vaughn, MD (a copy of which she gave to Victor Sidel, MD), that she read aloud at her court-martial. January 1991.
58. International Court of Justice Communiqué No. 96/3. July 8, 1996. The Hague, Netherlands.
59. Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (CWC). Available at: <http://www.opcw.org>. Accessed 28 January 2002.
60. Federation of American Scientists. Available at: <http://www.fas.org>. Accessed 13 December 2001.
61. Organisation for the Prohibition of Chemical Weapons. Available at: <http://www.opcw.org>. Accessed 13 December 2001.
62. Sidel VW. Quid est amor patriae? *PSR Q*. 1991;1:96–104.

63. Geiger HJ. Conscience and obligation: Physicians and just war. *PSR Q*. 1991;1:113–116.
64. Wakin MM. Wanted: Moral virtues in the military. *Hastings Cent Rep*. 1985;15(5):25–26.
65. Moskop JC. A moral analysis of military medicine. *Mil Med*. 1998;163(2):76–79.
66. Pellegrino ED. Societal duty and moral complicity: The physician's dilemma of divided loyalty. *Int J Law Psychiatry*. 1993;6:371–391.
67. Iacopino V, Heisler M, Pischevar S, Kirschner RH. Physician complicity in misrepresentation and omission of evidence of torture in postdetention medical examinations in Turkey. *JAMA*. 1996;276(5):396–402.
68. British Medical Association. *Medicine Betrayed: The Participation of Doctors in Human Rights Abuses*. London: Zed Books; 1992.
69. Amnesty International. *Prescription for Change: Health Professionals and the Exposure of Human Rights Violations*. London: Amnesty International; 1996.
70. Westermeyer J. Compromise, complicity, and torture [editorial]. *JAMA*. 1996;276(5):416–417.
71. Farrar JT. Medicine needs a code of ethics. *Mil Med*. 1986;151(2):130.
72. Carter JH. Military race relations: The responsibility of mental health professionals. *Mil Med*. 1978;143(11):779–781.
73. Platoni KT. The quest for ethical leadership in military medicine. *Mil Med*. 1994;159(2):169–171.
74. Ryle JA. Foreword. In: Joules E, ed. *The Doctor's View of War*. London: George Allen & Unwin Ltd; 1938: 7–10.
75. Liberman R, Gold W, Sidel VW. Medical ethics and the military. *N Physician*. 1968;17:299–309.
76. Lown B. Nobel Peace Prize lecture: A prescription for hope. *N Engl J Med*. 1986;314(15):985–987.
77. Levy BS, Sidel VW. Preventing war and its health consequences: Roles of public health professionals. In: Levy BS, Sidel VW, eds. *War and Public Health*. New York: Oxford University Press; 1997: 388–393.
78. Engelhardt HT. Fear of flying: The psychiatrist's role in war. *Hastings Cent Rep*. 1976;6:21.
79. Veatch RM. The psychiatrist's role in war. In: *Case Studies in Medical Ethics*. Cambridge, Mass: Harvard University Press; 1977: 245–251.
80. Hopkins JET, Stelling HG, Voorhees TS. The marauders and the microbes: A record of righteous indignation. In: Stone JH, ed. *Crisis Fleeting*. Washington, DC: Office of The Surgeon General, US Department of the Army; 1969: 293–396.
81. Koehler RH, Smith RS, Bacaner T. Triage of American combat casualties: The need for change. *Mil Med*. 1994;159(8):541–547.
82. Howe EG, Martin E. The use of investigational drugs without obtaining servicepersons' consent in the Persian Gulf. *Hastings Cent Rep*. 1991;21:21–24.
83. Nass M. Anthrax vaccine. Model of a response to the biological warfare threat. *Infect Dis Clin North Am*. 1999;13(1):187–208.
84. Lane HC, Fauci AS. Bioterrorism on the home front a new challenge for American medicine. *JAMA*. 2001;286:2595–2597.
85. Daniels AK. In the service of the state: The psychiatrist as double agent. *Hastings Cent Rep*. 1978;8(special suppl):3–6.



86. Howe EG. Confidentiality in the military. *Behav Sci Law*. 1989;7(3):317–337.
87. Centers for Disease Control and Prevention. Surveillance for adverse events associated with anthrax vaccination—US Department of Defense, 1998–2000. *JAMA*. 2000;283:2648–2649.
88. Gerardi SM. The management of battle-fatigued soldiers: an occupational therapy model. *Mil Med*. 1996;161(8):483–488.
89. Hazen S, Llewellyn C. Battle fatigue identification and management for military medical students. *Mil Med*. 1991;156(6):263–267.
90. Carter BS. Ethical concerns for physicians deployed to Operation Desert Storm. *Mil Med*. 1994;159(1):55–59.
91. Parks WH. Memorandum for the Surgeon General, Article 10, 1977. Protocols Additional to the Geneva Convention/ August 12, 1949:21 July 1983.
92. Agora. The US decision not to ratify protocol I to the Geneva Convention on the protection of war victims. *Am J Intl Law*. 1988;82:784–787.
93. Vastyan EA. Warriors in white: Some questions about the nature and mission of military medicine. *Texas Rep Biol Med*. 1974;32:327–342.
94. Neel S. The medical role in army stability operations. *Mil Med*. 1967;67:605.
95. Allodi F, Cowgill G. Ethical and psychiatric aspects of torture: A Canadian study. *Can J Psychiatry*. 1982;27(2):98–102.
96. Drinan RF. *The Mobilization of Shame*. New Haven, Conn: Yale University Press; 2001: 98.
97. Graessner S, Gurriss N, Pross C, eds. Riemer JM, trans. *At the Side of Torture Survivors*. Baltimore, Md: The Johns Hopkins University Press; 2001.
98. Livingston GS. Medicine and the military. In: Visscher MB, ed. *Humanitarian Perspectives in Medical Ethics*. Buffalo, NY: Prometheus Books; 1972: 268.
99. Livingston GS. Letter from a Vietnam veteran. *Saturday Review*. 1969;(September 20):22–23.
100. Nightingale EO, Stover E. A question of conscience. Physicians in defense of human rights. *JAMA*. 1986;255(20):2794–2797.
101. Cohen C. Conscientious objection. *Ethics*. 1968;78:269–279.
102. Linn R. Moral judgment in extreme social contexts: soldiers who refuse to fight and physicians who strike. *J Appl Soc Psychol*. 1988;1149–1170.
103. Bowles CS. Report of Charles SP Bowles, Foreign Agent of the United States Sanitary Commission Upon the International Congress of Geneva. London: R. Clay, Son & Taylor; 1864.
104. Longmore T. On the Geneva convention of 1864, in relation to the aid afforded by volunteer societies to sick and wounded soldiers during the late Franco-German war...1866. *Surg Gen Cat*. 1866;1(16):1–21.
105. Hayden DL. Should there be a psychotherapist privilege in military court-martials. *Mil Law Rev*. 1989;123:31–107.



# Chapter 12

## MIXED AGENCY IN MILITARY MEDICINE: ETHICAL ROLES IN CONFLICT

EDMUND G. HOWE, MD, JD<sup>\*</sup>

---

### INTRODUCTION

#### MILITARY ROLE-SPECIFIC SITUATIONS

- Military Mission and Treatment Priorities for Combat Fatigue
- The Administration of Unproven Pharmaceuticals
- Treating and Conserving the Fighting Strength
- Counseling and Utilization of Irradiated Soldiers
- Overview

#### SITUATIONS INVOLVING DISCRETION

- Balancing the Needs of the Military With the Needs of Patients
- Using Discretion When Treating Soldiers With Marginal Problems
- Counseling Soldiers With HIV Who Endanger Third Parties
- Meeting the Clinical Needs of Soldiers With Psychological Disorders
- Prioritizing the Needs of Patients Over the Needs of the Military
- Overview

#### THE EMOTIONAL EFFECT OF ROLE CONFLICT

#### CONCLUSION

#### ATTACHMENT: EVOLUTION OF INFORMED CONSENT

<sup>\*</sup> Formerly Major, Medical Corps, United States Army; currently, Director, Programs in Ethics, Professor of Psychiatry, and Associate Professor of Medicine, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, Maryland 20814; and Chair, Committee of Department of Defense Ethics Consultants to the Surgeons General



Franklin Boggs

*Pill Call*

circa 1944

"Soldiers suffering from malaria get their daily quota of atabrine tablets from the Medical Corps captain. Artist Boggs caught this scene in the South Pacific." This image clearly captures the doctor, attired in his crisp uniform, clipboard in hand, dispensing medicine to protect and "conserve the fighting force." Caption written by Major Clarence Worden, Medical Department of the United States Army. In: Mackenzie D. *Men Without Guns*. Philadelphia: The Blakiston Co; 1945: Plate 4. Illustrated with 137 plates from the Abbott Collection of paintings owned by the United States Government.

Art: Courtesy of Army Art Collection, US Army Center of Military History, Washington, DC.



## INTRODUCTION

This chapter will discuss ethical issues military physicians face when they confront conflicting loyalties between those they owe to their patients and those required by the military. These conflicts are referred to as problems involving “mixed agency.”<sup>1</sup> This is the source of much of the tension discussed in the two preceding chapters and in several of the other chapters in these two volumes.

Mixed agency has been one of the most significant ethical issues in military medicine throughout the ages and has become of more interest to civilian physicians in recent decades. Physicians acting as employees of institutions (ie, penal systems, professional sports teams, and managed care organizations) face many of these issues. Similarities between military and civilian ethical issues will be noted in this discussion, but the primary focus will be on examining these conflicts from a military perspective.

These ethical dilemmas for military physicians arise under two conditions. The first occurs when military physicians’ ethical choices and the requirements of the law or regulations conflict. The second arises when their ethical choices are not addressed by the law or military regulations. In the first condition, it might be presumed that military physicians’ departing from the law or regulations is always unethical. The example of Nazi physicians’ following German law during World War II indicates that this is not always the case. Thus, the law does not always determine what is ethically appropriate. Additionally, ethical questions are not always resolved by law or regulations for other reasons. For example, the law may be too general because, by necessity, it pertains to large groups of people. Therefore, if physicians follow the law strictly, they may be unable to meet many individual patients’ exceptional needs.

Military physicians could follow the letter of the law by pursuing what is referred to as a role-specific ethic. (A role-specific ethic involves a person’s adhering strictly to the requirements of a given role and exercising no discretion.) Military physicians adopting a military role-specific ethic would strictly follow duties required by military law or regulations, or as dictated by their superior officers. An example of physicians in civilian practice following a role-specific ethic is when they report a case of suspected child abuse. They do not exercise any discretion in these situations; they simply follow the requirements placed on them by society. If military physicians adopt a military role-specific ethic, they would never exercise discretion and never engage in any action to meet their patients’ needs<sup>2,3</sup>

that would depart from military law or regulations.

Conversely, military physicians adopting an exclusively medical role-specific ethic would strictly follow the principles of the medical profession that generally require physicians to put their patients’ interests first. Their always adopting a medical role-specific ethic could result in their failing to uphold the military requirements they and their patients have sworn to serve. These requirements include their willingness to sacrifice their life for their country, if necessary. Both soldiers and military physicians know or should know this when they enter the military. In general, soldiers understand and expect that military physicians will sacrifice a soldier’s individual interest for the sake of the mission or greater numbers of soldiers if necessary.

The military physician, at least implicitly, promises to support the mission or greater good when and if this is necessary, even if this requires subordinating the medical well-being of the individual soldier. Soldiers do not, of course, willingly give their lives so that the war can be lost. A soldier makes such a sacrifice only with the expectation that all measures possible will be taken by everyone in the military, physicians included, to ensure that if soldiers must die, it will have been for a valid reason. This is respecting soldiers as individuals because they autonomously choose to sacrifice for a greater good, even to the point of making the supreme sacrifice of giving their lives.

On what grounds, however, could ethical stances that deviate from the law be justified? The answer to this question will depend, in part, on which of two views one has regarding the potential that ethical analysis has for discerning sound moral views. One view is that ethical analysis can provide “right” answers. This view is problematic because different core values may have comparable merit such that the issue of which core value should prevail cannot be resolved. This is especially true in a pluralistic society such as the United States in which values are highly variable. A second view (whose claim for what ethical analysis can do is more modest) is that ethical reasoning cannot provide right answers, but, in comparison to alternative approaches, it is the best approach available for resolving problems in which competing values conflict. This claim presupposes that ethical analysis results in the highest proportion of ethically sound outcomes, though whether it has achieved the best outcome in any one case cannot be discerned. This more modest claim underlies the analyses in this chapter.

In the second condition under which ethical di-

lemmas arise (when ethical choices are not addressed by the law or military regulations), the law's requirements are minimal: The law does not indicate the extent to which military physicians optimally should go to meet their patients' needs. The law states only what they must do legally, not what ethically they should do. The law requires a minimum acceptable standard, while ethics sets a somewhat higher standard. An example in civilian law is the "good samaritan" law. Physicians may not legally be required to stop at an accident scene to assist persons who are injured, but there may be innumerable instances in which they should do so. To discern what is ethically best for their patients as opposed to merely permissible in such instances, military physicians cannot rely solely on the law. They must use ethical analysis.

There are many methods for ethical analysis (see Chapter 2, *Theories of Medical Ethics: The Philosophical Structure*). Deciding which to use and how to apply it to ranking different visions of the good is very difficult. When there are competing values, all of which are reasonable and important, no ethical theory can provide such a ranking. Rather, ethical analysis can suggest the relevant facts and ethical values that should be under consideration. I contend that ethical analysis, using whatever method is chosen, can supply a method for making decisions that over the long run throughout *many* decisions will result in overall "better" decisions. Ethical analysis will not necessarily determine, however, that the best decision is reached in a given particular case.

The question that arises, then, is what should decision makers do when, having assessed all the relevant facts and values that should be considered, no clear "superior" ethical answer emerges. The question then changes from what the answer should be to who should decide the question. Here there may be no "superior" ethical answer, but there usually will be a compromise on which all or at least most can agree. Most agree, for example, that it would be better for a decision to be made by a duly authorized person or by a vote than by physical violence among those who disagree. In the military this authority resides in the President, as Commander-in-Chief of the Armed Forces, and in subordinate commanders within the chain of command. For decisions involving involuntary treatment or hospitalization of Army members, the Secretary of the Army is empowered to make these decisions.<sup>4</sup> Typically, however, the Secretary of the Army does not exercise this authority, but allows significant latitude for decision making within the patient-physi-

cian relationship.

Many, if not most, of the more difficult ethical dilemmas military physicians encounter involve situations in which they face conflicting loyalties. These dilemmas are not different in principle from those faced by civilian physicians.<sup>5,6</sup> For instance, when physicians work in institutions such as prisons, they face a conflict between meeting the interests of inmates whom they see as patients and the interests of the prison system. Suppose, for example, that they grant all inmates who claim to feel ill an excuse from work. Other inmates are likely to do the same, feigning illness in increasingly large numbers, resulting in a "floodgate" effect. If the prison work program is to continue to function (and there are many good reasons why it should), these physicians may have no choice but to excuse inmates from work only when there are objective findings of medical conditions. As a result, some inmates who genuinely feel sick but who do not present with objective findings, such as those who have stomach pain, might not be excused and might have to continue to work, even though they are genuinely ill.

Highly analogous conflicting loyalties occur in the military. However, the conflicting obligations military physicians face generally are greater in both magnitude and frequency than those faced by their civilian counterparts.<sup>7-9</sup> These differences exist for several reasons, but the primary reason is that the stakes in the military are much higher.<sup>10</sup> For instance, if increasing numbers of soldiers are excused from duty by feigning illness, the ability of the military to accomplish its mission will be diminished. It is even possible that the war could be lost, and that the society that depends on its military for protection could be destroyed. In that event, the number of civilians killed may be in the millions. This possibility is illustrated by World War II, where extraordinary numbers of persons would have died if Nazi Germany had won the war, and then implemented its genocidal policies in the additional countries it had conquered.

Such calamitous outcomes must be prevented. All persons in the military, including physicians, share the priority of preventing these outcomes. They agreed to uphold the primacy of the military mission, at least implicitly, when they joined the military. Nonetheless, when individual patients' interests are at stake and they compete with the goals of saving large numbers of soldiers' lives or winning a battle, a conflict may exist between the traditional civilian priority of meeting patients' needs above all else and the military priority of first

and foremost meeting the needs of the military mission. Which interests, the military's or the patient's, should take priority when they conflict? This chapter will explore this issue in some detail. It will also address the military physician's moral angst sometimes generated by these ethical conflicts and how understanding why some of these conflicts can't be "better" resolved may affect them.

In this chapter, I shall suggest that when a conflict exists between the military's and the patients' interests, these situations are best understood by considering them as falling into two categories. The first category is one in which military physicians should exercise no discretion because the needs of the military should be absolute. The second category is one in which they should exercise discretion because the needs of the military are not absolute. There is one additional category that will be mentioned, but only in passing. This category is one in which military physicians should exercise no discretion because patients' interests warrant exclusive priority (ie, a medical-role specific ethic). An example of this latter category would be a commander's request to review patients' charts in an attempt to gain information that could help discern who is homosexual. Although this has been done in the past, the physician should refuse the commander's request as the rights of the patients involved clearly warrant priority.

I shall also suggest a counterintuitive possibility, namely that it may be ethically possible and optimal to meet both patients' needs and those of the military even when these needs are mutually exclusive. The classic example is when military physicians treat soldiers who are homosexual. Military physicians may choose not to report such soldiers' homosexual behavior even though military regulations deem homosexual behavior unlawful. The military's having these regulations but military physicians ignoring them may most further two mutually exclusive ultimate ends: (1) military physicians may maintain soldiers' trust, on one hand, by protecting their confidentiality, and (2) the regulations may deter overt homosexual behavior, on

the other.

These categories are approximate as opposed to absolute. It is my hope that if military physicians use this framework of analysis, benefits to the military and to patients will be furthered. It is also my hope that better frameworks will be developed in the future.

The vast majority of these conflicts can and should be resolved in the patient's best interest. This is because patients' needs should be compromised only when necessary. This is also in the military's interest because to the extent individual soldiers can be and are respected as individuals, the military as an institution rests on higher moral ground. There are some situations, however, where overarching military necessities must prevail, even at the risk of harm to the soldier. This is the nature of military medicine. If society may be destroyed by acting in the patient's interest, then it will be necessary to follow the military role-specific ethic and military physicians should use no discretion. In civilian medicine, there are, indeed, pressures (such as financial or contractual concerns) to place interests other than those of the patient first. However, the overriding urgency and necessity of protecting society and the lives of millions of its members is a much stronger argument for the military subordinating patients' interests.

These contrasting circumstances are what make the mixed agency of military physicians dramatically different from that of civilian physicians. Accordingly, I will discuss situations requiring strict adherence to the military role-specific ethic first. It is important to remember, however, that these situations are quite uncommon and, at their core, involve the survival of society and its members as described above. This point bears repeating: Military physicians in the course of their military service are not likely to have to make many choices that place the needs of the military ahead of those of the patient. However, if and when that situation arises, military physicians ideally will have thought about it and will understand why they must do it, whether or not they personally agree.

## **MILITARY ROLE-SPECIFIC SITUATIONS**

The following scenarios are examples of situations in which there may be an overriding requirement to sacrifice the interests of individual soldiers to serve the greater good of allowing the society to survive. The rationales for military physicians' decisions are analogous to those of soldiers being willing to give their lives in the service of their country.

### **Military Mission and Treatment Priorities for Combat Fatigue**

Military physicians should wholly delegate their decision-making authority when they treat soldiers on the battlefield for combat fatigue. Military physicians, usually psychiatrists in this situation, are



expected to give such patients food, shelter, and, most importantly, the expectation that they will return to duty.<sup>11</sup> (This approach is referred to as “three hots [hot meals] and a cot [for sleeping]” in military jargon.)

The question has been raised whether military physicians are abandoning the tenets of the medical profession when they violate these patients’ autonomy. Specifically, when they treat soldiers with the expectation that they will return to combat they do not impartially inform them of their condition as they might if they were civilians. In civilian contexts patients should, in general, be told the truth and be fully informed, and then allowed to choose what they will do. Military physicians could remain more neutral in their interactions with these patients. They could give such soldiers information regarding their illness and its possible course, including the impact of returning or not returning to combat. By doing this in an impartial manner, they would have less influence on soldiers’ expectations and emotions, and thus would not implicitly manipulate them to return to their unit and to combat.<sup>12</sup>

There is a compelling reason for military physicians not choosing this more neutral position. Military physicians excusing these soldiers from further duty could result in inordinate numbers of other soldiers following suit (ie, the “floodgate” effect), which could be fatal to the combat effort. In the case of combat fatigue, it is even more likely than in the prison scenario that there would be a “floodgate” phenomenon.

In these cases, combat fatigue could dramatically increase in incidence once evacuation is begun because combat is so life-threatening that the normal response under these conditions is to do whatever one can to survive. Intentional self-wounding is one example of this occurring consciously. With combat fatigue, it is possible that soldiers could consciously feign combat fatigue signs and symptoms in an effort to escape the dangers of combat. It is more likely, however, that there would be many more cases in which there is an unconscious generation of these signs and symptoms. This is analogous to mass hysteria situations such as those that periodically arise in high schools where students, in increasing numbers, report headaches, fatigue, or nausea, even though no cause can be found for their symptoms. In the case of combat fatigue, the soldiers may be unconsciously seeking an honorable exit from the stress of combat. Therefore, the practice of returning soldiers who have experienced combat fatigue to their units is required for effec-

tively continuing the mission. This requirement exists, not only in situations of overriding and immediate military demands, but in all instances of combat fatigue.

It is coincidentally fortunate that the long-term psychiatric morbidity is lessened by soldiers returning to their units. Returning these soldiers to combat can decrease their subsequent psychiatric morbidity by decreasing the incidence of “survivor guilt,” as long as they survive combat. As Jones has noted,

[i]t is important to remember that most psychiatric casualties are soldiers who, because of the influence of negative psychological, social, and physiological factors, unconsciously seek a medical exit from combat....Improperly treated through evacuation, the symptoms may persist or worsen, developing characteristics of traumatic neurosis (chronic post-traumatic stress disorder).<sup>13(pp37–38)</sup>

Although this decreased morbidity is offered by some as a justification for treating patients with combat fatigue with “three hots and a cot,” this rationale is conceptually invalid. This reduction in psychiatric morbidity by returning soldiers to their units is only a fortunate side effect. It is not a substantive justification because soldiers given a choice between risking dying due to remaining in combat or remaining behind in patient status might well choose the latter. Thus, treating soldiers with combat fatigue with return-to-duty expectation cannot be in these soldiers’ best interest when they may see their best interest (rightfully) as staying alive.

An inextricably related ethical question arising in this context is whether military physicians should ever inform soldiers prior to entering combat about this ethical conflict (ie, treating them for combat fatigue by giving them the expectation that they will return to duty or respecting their autonomy by informing them of the possible outcomes more neutrally). Full disclosure would require this, and any practice that depends for its success on a practice remaining secret is ethically questionable and empirically likely to be short-lived.

Having said that, it must be acknowledged that some medical practices based on keeping information secret have indeed never become public knowledge and thus have remained effective. An example is physicians treating patients with somatization disorder (which involves their treating psychogenic physical symptoms) by scheduling regular visits. These visits are intended to reduce these patients’ dependency needs, which are presumed to underlie their symptoms. These patients continue to op-



erate on the assumption, however, that their regular visits with their physicians are based on their physical needs.<sup>14</sup>

Likewise, the success of treating soldiers with the expectation that they will return to duty depends on their not knowing the psychological basis for this treatment. Thus, to meet the military's needs during combat, the military physician, in complicity with other medical personnel also familiar with this strategy, must not only attempt to influence soldiers by conveying this expectation but must also withhold from them the reasoning behind this treatment. Although this is deceit by omission, this deceit is nonetheless necessary. Physicians and others must not inform soldiers prior to entering the military that this conflict could exist. They absolutely must not inform them prior to engaging in combat, because the unique needs of the military mission may require that the soldiers not know about the deceit. If soldiers know of this deceit because they have been informed beforehand, military doctors may not be believed later when they communicate the expectation that soldiers will return to combat.

### **The Administration of Unproven Pharmaceuticals**

A more recent example in which a military role-specific ethic may be necessary is that of the role of military physicians in the administration of vaccines or other preventive measures that have been ordered for the protection of the military and its mission.

### ***Requiring Soldiers to Take These Agents***

During the Persian Gulf War (1990–1991) soldiers were required to take agents to protect them from the enemy's possible use of biological and chemical warfare weapons, though these protective agents had not been fully tested for this purpose.<sup>15</sup> To subject human research subjects to the effects of biological or chemical weaponry would, of course, be unconscionable because this would involve subjecting them to weaponry that could seriously harm or even kill them. Thus there is no practical method for testing human subjects to conclusively prove the safety and efficacy of these agents used in this warfare context.

At that time it was feared, and not without cause, that Iraq would launch missiles containing biological or chemical agents, even though this would have violated international law. After the end of the war, investigation revealed that Iraq, indeed, had prepared missiles containing these agents and that they

were ready to be launched. Fortunately, for whatever reason, Iraq did not use these weapons. Nevertheless, the threat of Iraq using biological and chemical weapons was quite real.

Appreciating these actual circumstances helps to illustrate why soldiers were required by the military to take these preventive measures and why this and similar future requirements may be not only ethically justifiable but obligatory. At the time of the Persian Gulf War, the most knowledgeable military and civilian authorities believed that the risk/benefit ratio of these agents was overwhelmingly favorable to soldiers. Between August and December of 1990, many meetings were held at the Pentagon by Department of Defense (DoD) and Food and Drug Administration (FDA) experts on these agents. These meetings also included representatives from the Office for Protection From Research Risks of the National Institutes of Health (NIH), the National Security Agency (NSA), the Department of Justice (DOJ), the Office of Management and Budget (OMB), and others. The Secretaries of the Department of Defense and Health and Human Services (HHS) were also personally involved (as was I, to give ethical input).

On 30 October 1990, the Assistant Secretary of Defense for Health Affairs informed the Assistant Secretary for Health of the Department of Health and Human Services that for "some...risks, the best preventive...treatment" calls for the use of new drugs, but that during combat, if the enemy might use a potentially deadly weapon such as nerve gas, the military's deferring to soldiers' personal preference not to take a preventive drug that may save their lives was simply "not acceptable."<sup>16</sup>

The FDA in response to this need established specific requirements on 21 December 1990 that, if met, allowed military physicians no discretion. These requirements included a broad-based review board having to assess several factors, such as the new drug's safety and efficacy and the absence of a satisfactory alternative.<sup>17</sup>

President Clinton signed an executive order implementing this same approach on 30 September 1999.<sup>18</sup> (The three are presented in the Attachment following the chapter.)

Prior to the combat phase of the Persian Gulf War, the military, the FDA, and others concluded, then, that military physicians may have to give soldiers some drugs without offering them the option of refusing to take them. This policy<sup>19,20</sup> remains in force today: All soldiers are required to take anthrax vaccine whether or not they give their prior consent.<sup>21</sup>

Military authorities believed that the use of these

unproven agents was not only the best but the only means of protecting US troops in the Persian Gulf if Iraq chose to use this weaponry. The problem with the agents, however, was that they had not been fully tested on humans. Based on ethical standards applied in *civilian* medical settings, in contrast, soldiers would have been totally justified in refusing to take these prophylactic agents unless they gave prior informed consent.

What should have happened to soldiers if they refused to take these agents? Should military physicians have respected their refusal or have reported them for refusing to comply with military requirements? In the event military physicians reported them, the soldiers could be court-martialed. Why? This is because the entire force could have been decimated had Iraq used these weapons on unprotected troops. Further, inordinate additional numbers of civilians might have been killed if Iraq had prevailed in this war. Thus, military physicians had, and should have had, an absolute obligation to force soldiers to take these agents or face punitive repercussions.

The ethical justification of military physicians being required to act in this manner is valid only as long as the two underlying assumptions are correct. The first assumption is that the use of these agents should protect soldiers significantly in the event of exposure to a biological or chemical warfare agent. The second assumption is that taking such a protective agent should cause substantially less risk of harm to them than suffering the effects of a biological or chemical warfare agent. However, if it were found that a protective agent such as anthrax vaccine would not protect soldiers from airborne anthrax to the degree that it is now believed it would, or that it would cause significant adverse side effects, this justification might no longer exist. Thus if the factual assumptions underlying the present ethical priorities are no longer valid, these priorities would probably change as well.

The empirical assumptions made regarding the safety and efficacy of the anthrax vaccine have, in fact, been challenged.<sup>22</sup> Furthermore, in the future it is possible that new biological and chemical weaponry will be developed at a pace that far outstrips a nation's capacity to develop prophylactic agents in response to these new threats. Were this to occur, the obligatory use of preventive measures (whose anticipated benefits would be no more than marginal and whose potential risks are serious but unknown) might no longer be ethically justifiable. However, even if the expected benefit is only marginal, this marginal contribution to the war effort could make the difference in the outcome of the war.

Thus military physicians could still have an absolute obligation to require soldiers to take these prophylactic agents, even under these significantly different circumstances. Further, this should be the decision of superior officers who are more fully informed and have a wider perspective than military physicians in regard to what is necessary for the military to succeed. Therefore, military physicians should adopt a military role-specific ethic when making decisions in regard to giving these agents.

### *Truth Telling in the Combat Theater*

In civilian settings in the United States physicians now have an absolute obligation in almost all contexts to tell their patients the truth. This has not always been the case, however. Several decades ago, US physicians believed that they should withhold from patients certain dire diagnoses, for instance that they have cancer. Today, physicians' withholding this information generally is considered unconscionable. The primary exception to this is when a physician is convinced that patients' receiving this information would be unduly harmful to them. Physicians may be ethically and legally justified in withholding the truth under these circumstances. Ethically, this withholding is justifiable on the basis of its furthering the patient's best interest. In ethics this is commonly referred to as "paternalism." Legally, physicians having this discretion is permitted under the doctrine of physicians' "therapeutic privilege." It is unclear whether the present priority given to telling the truth will prove timeless or not. It has increasingly been criticized as falling short of meeting all patients' needs optimally. It precludes physicians adapting to what patients individually most need or want.<sup>23</sup> If a physician doesn't tell the truth, a patient could sue, but the patient will have to prove that the physician unduly violated his or her therapeutic privilege. Finally, physicians also have been sued successfully for telling patients too much (truthful) information.

Under exceptional circumstances during combat, the overriding importance of the principle of truth telling may become more open to question as the risk of truth telling poses a greater risk to larger numbers of soldiers. It may be that this principle of veracity should be subordinated, not on the basis of patients' welfare but for the benefit of the military.

During the Persian Gulf War, for example, available supplies of the prophylactic agents to protect soldiers from botulism were insufficient.<sup>24</sup> As a result of this deficiency, the question arose whether military physicians should tell their troops this

truth. What they should have done in this instance, and should now do in the event that a similar question arises, should depend in large part on the underlying empirical assumptions that are made and how it is anticipated that soldiers would react to this information.

It would not be inconceivable to imagine that soldiers told this truth might be upset. In the Persian Gulf War, soldiers first were told that they would receive an initial vaccine for botulism, with subsequent boosters. When the supplies became limited, they were told that the initial dose would suffice. Soldiers were understandably upset. Nevertheless, as their behavior subsequently confirmed, they were not so upset that they were unwilling to fight. They were angry (as some who had been present shared with me later) but continued to serve and serve effectively.

Military physicians could not have predicted with absolute certainty that soldiers would respond in this manner as opposed to becoming so alarmed that they were not combat ready. Presumably, these soldiers believed what their physicians subsequently told them. They believed (despite what their physicians had said initially) that if Iraq used these missiles, the single dose would substantially protect them.

Despite this specific example from the Persian Gulf War, it is nonetheless possible that if physicians had told their troops that repeated doses of vaccines were unavailable, they would have panicked and refused to fight. However, if they were not told and this truth about the vaccine shortage "leaked out," they would have felt deceived. Then these soldiers also may have lost faith in their commanders and refused to continue to fight.

The issue of whether soldiers should be told the truth when their reaction cannot be predicted should be left to commanders. Military physicians are not privy to all of the information required to make the best command decisions. For this same reason, physicians' obligation to do what their commanders decide as opposed to exercising discretion generally should be absolute.

### **Treating and Conserving the Fighting Strength**

Military physicians' obligation to treat soldiers with the goal of conserving the fighting strength is most clearly seen in three arenas: (1) treating soldiers to return to duty; (2) setting treatment priorities in triage situations; and (3) removing unstable soldiers from combat. Each of these arenas will be discussed separately.

### ***Treatment to Return Soldiers to Duty***

The primary scenario that all military physicians train and prepare for is that of treating soldiers during combat. In that setting they may have to treat injuries or illnesses so that these soldiers regain the capacity to return to combat. There, they will fight the enemy and possibly die. In this situation, these physicians violate these patients' best *medical* interests by providing a chain in the link of causation that may lead to their death by hostile forces. Military physicians' furthering soldiers' deaths, even indirectly, violates the priority physicians give in civilian contexts to saving their patients' lives.

Situations in which commanders decide to return ill or injured soldiers to combat are very rare and are situations in which the military requirements are so significant that the alternatives cannot be allowed. This situation occurred, for example, in Burma (in the South Pacific theater of operations) during World War II. Commanders decided that soldiers with high fevers due to malaria should nonetheless return to the front to continue fighting. "[T]he medical officers of the outfit...[were] pushed aside.... One stated, '[o]ur hands are tied,' but 'that there is a very high probability that these are cases of developing liver abscesses and tuberculosis as well as other serious complications among the men.'"<sup>25(p379)</sup> Though physicians went along with the commanders' orders, later some high-ranking military physicians contended that all military physicians should have refused to treat these soldiers under these conditions.<sup>25</sup> Hopkins, Stelling, and Voorhees state, "If pressure from high ranking field officers can be applied to...such an extent...[then these]... medical officers are robbed of sacred duties and rights to which their professional knowledge and service entitles them."<sup>25(p380)</sup>

Contentions such as Stelling's are ethically open to challenge, however, for several reasons, including those already discussed. First, physicians do not have all the information accessible to commanders regarding the military's needs. Second, physicians lack expertise in deciding how battles should be won; commanders hold this expertise. And third, military effectiveness requires a clear chain of authority and decision making, of which physicians are not a part. Thus, even though commanders' decisions may be wrong in some instances, maintaining this chain of authority is far preferable for bringing about an ultimately successful outcome than allowing subordinates, including those who are physicians, to defy this structure if and when they see fit. The one exception is when the orders

or war are ethically unjustifiable, as in the case of the Nazis.

The ethical rationale for this conclusion is referred to in philosophic terms as rule-utilitarian reasoning. Rule-utilitarian reasoning recognizes the utilitarian position (see Chapter 2, *Theories of Medical Ethics: The Philosophical Structure*) that the ethically correct action is that action that maximizes the overall good and minimizes the overall harm. It also recognizes that it may be preferable to have a general rule that will maximize the good. This rule will take precedence over a specific action even if that action may yield a greater good in a specific circumstance because the overall good is maximized by generally following the rule.

In instances such as the one that occurred with malaria-infected soldiers in the South Pacific during World War II it would be possible for military physicians themselves to decide which soldiers should return to duty using the physicians' medical expertise and judgment. The result, however, could significantly impair the *operational* effectiveness of the war effort. Alternatively, military physicians could, should, and generally do leave these decisions to commanders who, as stated, have a greater overall picture of the combat situation. This follows rule-utilitarian reasoning: A commander may make the wrong decision in a given circumstance, but by allowing commanders to make these decisions in general, the overall war effort should be significantly enhanced.

This is further illustrated by a second example. This one involved forces fighting at Guadalcanal. There they encountered well-entrenched Japanese soldiers. However, malaria infection rates approached 90% in some units of the American 1st Marine Division, in part because of poor compliance among soldiers in taking Atabrine, a synthetic antimalarial, and also because the topography of the island helped spread the disease.<sup>26</sup> Tactical considerations prompted the commander, General Vandegrift, to order doctors "not to excuse soldiers with temperatures of 103°F or less...."<sup>26(p124)</sup> If military physicians had not deferred to the commanders, the island of Guadalcanal might not have been taken, and the overall outcome of the war might have been changed.

Military physicians in this situation and many of those that follow face the agonizing choice of protecting soldiers at the price of others being harmed or not protecting the soldier and by doing so sacrificing one's loyalty to the soldier-patient. Obviously, the argument for erring one way as opposed to the other shifts in relative moral weight

as the magnitude of harm and the numbers of potentially harmed changes.

In summary, military physicians delegating their moral judgments to their superiors in this way, and thus allowing themselves to play this role in the chain of causation that may lead to soldiers' death, contradicts the general civilian medical professional commitment to saving lives. Emotionally, they are predisposed and accustomed to putting patients first. Consequently, in this military context, they may feel exorbitantly distressed and this distress may take a toll. (What this toll is and how it can be addressed I shall discuss briefly at the end of this chapter.)

Yet, whereas military physicians delegate their moral judgments in one way, in another way they do not. Rather, they retain their own moral vision but choose to give others' vision priority, much as Socrates chose to give even his life because his moral vision was that the highest value involved respecting the authority of the state. That is, one can retain a moral vision but knowingly defer this because one believes a better outcome or higher value is achieved by deferring some decisions to others whether or not one personally believes they are right. This position ethically is known as rule-utilitarian ethics. As mentioned previously, this approach accepts the premise that to most benefit many, this may require that there be some submaximal results in individual cases. Practically, this approach would require that individual military physicians defer what they believe right to others, perhaps those with more information or who are more knowledgeable about possible outcomes than they.

### *Treatment Priorities in Triage Situations*

In the Burma and Guadalcanal incidents (discussed in the above section on treatment to return soldiers to duty) military physicians did not exercise discretion, but rather did exactly as they were ordered. This was appropriate because their commanders were in a far better position to understand the military situation and whether the limited effectiveness of soldiers who were sick with illnesses such as malaria would be necessary for the battle to be won.

Similarly, in triage scenarios military physicians may have to ignore their own moral predispositions, even though they know that this will directly result in soldiers dying (as opposed to "merely" facing this possibility by treating them and, thus, "allowing" their commanders to return them to battle). This occurs when medical aid stations are



overwhelmed with casualties and medical personnel must give priority to the treatment of soldiers who can return to combat. This priority requires postponing treatment of patients who are more critically ill or injured but could survive if treated in a timely manner.

This scenario also occurs when there is a shortage of materiel, such as medications, as opposed to a shortage of medical personnel. A well-known situation demonstrating this point occurred during World War II. When penicillin first became available, but supplies were limited, military physicians gave the limited supplies of penicillin available to soldiers who had venereal disease so that with this cure they could return to the front and fight effectively. As a result of this policy, others, with illnesses such as pneumonia who could have survived, instead died.<sup>27</sup> Although the commander has the responsibility for these decisions, physicians must carry them out. Physicians will have allowed patients to die that they knew they could have saved but for the commander's decision.

Using the rule-utilitarian argument discussed above, military physicians should have had no discretion to decide to do otherwise, although they should always give their commanders necessary medical information and their ethical views on what they believe their commanders should do. Military physicians should limit themselves in these contexts to serving a role determined by their superiors, because their superiors have a wider view regarding what is necessary to win the battle or war. As stated previously, when military physicians subordinate their own moral judgment in this manner, they are adopting a military role-specific ethic. It is important to stress, however, that this does not relieve the physician of the need to fully explain medical consequences to commanders for the decisions they are to make. Rather, it is to stress that once physicians have fully informed commanders of the medical aspects of the situation, these physicians must step back and allow commanders to make the decision that they, as commanders, have been trained and authorized to make. Physicians do not have the ethical responsibility, or the legal right, to interfere in the official chain of command unless it is a clear case of an unethical or illegal order. The military physician has, however, a moral responsibility to make his or her views known. This moral obligation, though difficult to implement sometimes in practice due to superiors not wanting to have their view challenged, is unequivocal.

The core values supporting military physicians treating soldiers in triage situations according to

their military role-specific ethic are the needs of the military and the needs of larger numbers of soldiers. This also serves some other important values. Chief among these are two: (1) maintaining equity between soldiers, and (2) satisfying the military's and military physicians' implicit promise to soldiers that under certain circumstances the mission must take priority over the needs of soldiers.

First, military physicians maintain equity between soldiers who are not injured and in combat, soldiers who are injured but can return to combat, and soldiers who are injured or ill and cannot return to combat. That is, when military physicians treat soldiers so that they can return to duty, if these soldiers do return to duty, they remain at risk of dying. Soldiers who have been injured or have become sick to the extent that they may die but do not return to combat remain at risk of dying, like soldiers who remain in combat or have returned to duty. All three groups, those already in combat, those returned to combat, and those incapacitated and still in staging areas remain in harm's way and thus at risk of dying for their country. They will continue to be at equal risk until they are removed from this "risk pool." This equity, in the sense of remaining at risk of dying, is maintained, then, for the soldier who may die in battle and for the soldier who is badly injured and may die from not receiving antibiotics. This same equity applies to soldiers with combat fatigue, though their risk is less. Both groups are similar in that they willingly undergo personal sacrifices because this is necessary for the military mission or the greater good.

Second, the military and military physicians fulfill their implicit promise to soldiers to serve both the military mission and soldiers at large above all else. Military physicians have made an implicit promise to all soldiers when soldiers join the military to sacrifice each of their individual medical interests when necessary for the military mission or the greater good. As stated before, soldiers are willing to give their lives for the greater good of protecting their country. Soldiers should, then, fully expect military physicians to fulfill these promises and, in fact, they may feel betrayed if military physicians do not.

The degree to which these approaches will remain ethically valid in the future is open to speculation. The success of combat may become much less dependent on individual soldiers fighting on the ground than it has been in the past. As the Persian Gulf War and more recent United Nations' actions in Kosovo illustrate, air bombardment and air superiority may be much more important in the fu-

ture. It is conceivable that at some point in time the number of ground troops will no longer be a significant factor in combat. In that situation physicians might not be justified in adopting a military role-specific ethic in triage situations.

Similarly, as a result of changing land war practices, the question arises as to whether military physicians will continue to be justified in treating combat fatigue in the manner they do now. The success of the current practice of returning service members rapidly to combat depends largely on the strength of the emotional bonding among soldiers in the unit. Soldiers' feelings of loyalty to those in their unit and the emotional support they receive from others in the unit after they return to it seem to be decisive factors in their recovery. Whether or not this is absolutely true cannot, of course, be empirically determined. Rather, it can only be deduced from anecdotal information and observation. However, new systems that rotate soldiers in and out of duty assignments, as occurred during the Vietnam conflict, may impair the extent of this bonding and thus the extent to which soldiers who experience combat fatigue can return to duty and then function effectively.

Furthermore, due to new weaponry, in the future soldiers may have to fight more independently from one another or they may need to disperse rapidly from one another on the battlefield. In either case, units again would function in a more disjointed manner, and the bonding among soldiers could decrease. As a consequence, the capacity of impaired soldiers to rejoin their units after they experience combat fatigue and then to continue to fight effectively may be reduced.

Even though military physicians' capacity to return soldiers with combat fatigue to duty may decrease for this reason, the risk of their opening up the floodgates to other soldiers developing combat fatigue if they remove these soldiers from further duty will remain. Military physicians still, therefore, ethically may be not only justified in giving soldiers the expectation that they will return to combat but their military role-specific ethic may require them to do so, in spite of a less beneficial psychiatric outcome, so that the combat effort can be sustained.

### ***Removing Unstable Soldiers From Combat***

Military physicians have an absolute ethical obligation during warfare to insure that mentally unstable soldiers do not significantly endanger other service members or the mission. Thus, unstable soldiers, or even those demonstrating the potential to become unstable, must be removed from duty even

if they desire to continue to serve.<sup>28</sup> In relieving them from further service, military physicians may be ethically justified or, in fact, obligated, therefore, to violate soldiers' interests in a different way. That is, when they give soldiers the expectation that they will return to duty, they violate soldiers' autonomy by being implicitly manipulative or coercive. When they remove soldiers from duty even when soldiers may be capable of serving but this is uncertain, military physicians violate their interests by not giving them any option to remain on duty and possibly to spontaneously recover. The question of whether military physicians should inform soldiers beforehand of the conditions under which they will remove them from duty involuntarily is inextricably connected to what military physicians should do during combat.

Respecting soldiers' autonomy fully in *civilian* contexts may well require informing them before a conflict arises of the conditions under which physicians would violate their autonomy. For instance, civilian psychiatrists tell their patients prior to instituting a therapeutic relationship of the conditions under which they would take action to hospitalize them involuntarily. For example, civilian patients are told that they may be hospitalized if they appear to be a danger to others or to themselves.

Military physicians as well could inform soldiers who could be having emotional difficulty when they first see them that they may use the information these soldiers disclose when interviewed to remove them from duty. Soldiers so informed could, however, use this forewarning to attempt to hide from military physicians evidence of underlying illness, such as not reporting delusions, hallucinations, or even other less serious symptoms such as insomnia. Although military physicians' withholding this forewarning is implicitly deceitful by omission, military physicians not only have justification but are obligated to engage in this deceit because these soldiers may markedly endanger their fellow troops as a result of becoming unstable.

### **Counseling and Utilization of Irradiated Soldiers**

The argument for military physicians telling soldiers the truth in regard to the supply of botulism vaccine being limited can be contrasted with what physicians should do after nuclear attack. As the botulism vaccine example illustrates, the justification for military physicians engaging in truth telling may depend on the estimated consequences. As stated, this may be an instance in which the customary priority of truth telling should no longer prevail because it appears likely that soldiers will

respond so adversely to learning the truth that they would be unable to continue to fight. This may be especially true after soldiers have been exposed to nuclear radiation. For instance, if soldiers were exposed to fatal doses of radiation after nuclear attack, it might take days before debilitating symptoms occur. If military physicians inform soldiers that they have been fatally irradiated and will die, they may refuse to fight or be so emotionally distraught that they are incapable of continuing to fight. Alternatively, knowing that they will die anyway, they may be *more* willing to give their life for their country in battle.

Their remaining for a short time in battle could be critical to the military's winning the war. The enemy's winning could have disastrous consequences, such as, again, Nazi Germany's carrying out further genocide should it have won World War II. Consequently, military physicians lying to these soldiers by withholding from them that they will die could be warranted under these circumstances.

One way in which the ethical validity of this and other claims can be assessed is to ask hypothetically whether soldiers asked this in advance would agree. Soldiers asked whether they would want this information withheld under these circumstances, prior to this occurring, might indicate that this is what they would want, because preventing such catastrophic outcomes is the reason they agree to fight in the first place.

This illustrates the critically important point I made earlier, that soldiers and military physicians share the priorities of both protecting large numbers of soldiers' lives and winning the war. Soldiers (both nonphysicians and physicians) voluntarily place themselves in harm's way and agree to place the needs of the military above their own needs when necessary, at least to some degree. They do this because of their belief that the goal of protecting society has a higher priority than even their lives. Military physicians serve to protect society as well and their methods may involve placing the military needs above their conventional obligations to tell patients the truth and above the needs of their patients. Thus, military physicians' withholding the truth in this and similar instances fulfills not only these two ethical ends of furthering the likelihood

of military victory and the needs of larger numbers of soldiers, but also military soldiers' autonomous choice and military physicians' prior implicit promise to them.

## Overview

The foregoing discussion involves the military physician's ethical obligations in regard to combat fatigue, triage, and truth telling regarding limited medical resources, or other situations. This discussion illustrates that although deontological values (values based on duties as opposed to consequences) customarily are given highest priority in civilian settings, they may warrant only secondary status in military settings during combat because of the exceptionally grave consequences to soldiers, the greater society, and others at stake. In addition, two deontological values may themselves conflict. In all the above instances, there is a conflict between military physicians' prior promise or duty as physicians to individual soldiers and to their unit and country. The latter may warrant priority. The values of respecting patients' autonomy by being impartial when they present with combat fatigue, by "warning them" when they may be mentally impaired, and by telling them truthfully when they may lack adequate protection against biological or chemical weaponry or have been fatally irradiated may justifiably be subordinated to meet critical military needs.

These examples represent one pole at the end of a hypothetical continuum. At this end, at least arguably, military needs should prevail because the consequences of not doing so are unthinkable. The national security interest, and therefore the "military necessity," is compelling. The requirement for military physicians to adopt a military role-specific ethic in which they cede all discretion to their military superiors and carry out actions even when they morally disagree is, however, not as compelling in some other situations. These situations arise when the national security interest, and therefore the military necessity, is not of sufficient weight to require that military physicians cede all discretion to their military superiors. The following section will examine these situations of lesser military necessity in detail.

## SITUATIONS INVOLVING DISCRETION

In these situations of lesser military necessity, values given priority in civilian settings generally warrant greater weight than military needs. As the military needs become less critical, the greater the justification becomes for military physicians to give

the same priority to patients' interests as these patients would have in civilian settings.

There are several contexts, however, in which the military's needs remain predominant, but not absolute. Because they are not absolute, the optimal

outcomes overall might come from allowing military physicians to exercise some discretion. I shall discuss several examples below. All these examples occupy a place along the hypothetical continuum between the extremes.

One extreme occurs when the national security interest, and thus military necessity, is absolute, and military demands are total, such as during active combat. I have explored this situation in the preceding discussion of situations in which military physicians should give total priority to their military role-specific ethic due to military needs and thus exercise no discretion.

At the other extreme they should also generally not exercise discretion but, rather, do what their civilian colleagues would do. The example of this given previously was military physicians respecting patients' confidentiality as they would civilians' confidentiality by not providing patients' charts to commanders seeking to use them to determine who might be homosexual. In between these two extremes is this area in which physicians must weigh choices and obligations to ensure the best treatment possible for patients within the context of military interests.

### **Balancing the Needs of the Military With the Needs of Patients**

Deciding when the needs of the military should predominate is easy when positioned at the end of the continuum in which soldiers face active combat, and life and death decisions must be made quickly and definitively. Moving further to the middle from that endpoint, however, one comes to an area in which military necessity lessens, and the issues are less obviously militarily driven. It is important to remember, however, that military readiness must always be maintained and therefore due consideration must be given even in these instances to not jeopardizing military readiness.

The three situations I will address to illustrate this need for military physicians to shift from a military role-specific ethic to one in which they can and should exercise discretion are: (1) evaluating a pilot suspected of being impaired, (2) evaluating a commander who may be impaired, and (3) dealing with issues regarding patients' confidentiality. As the military can be ordered to deploy within hours of notification, there may still be a need to err on the side of protecting the needs of the military over the needs of the patient as the following discussions will illustrate.

### ***Evaluating Pilots Who May Be Impaired***

A situation in which military physicians' obligation to violate their patients' confidentiality is greater than any other obligation is when their patient is a pilot.<sup>29</sup> Pilots are singled out because the damage that an impaired pilot, either military or civilian, can do to others is substantial. There have been a number of incidents in recent years in which a pilot who was psychologically impaired has crashed an aircraft. Those coming to mind in the past decade include an Egyptian Air pilot who was alleged to have intentionally put an airliner into a fatal dive, a US Air Force pilot who broke off from his filed flight plan and crashed into the side of a mountain, and the pilot of a B-52 who was alleged to have a reputation for doing "stunts" with his aircraft and whose plane crashed into the desert on a training flight. There are many other instances that could be cited. It is obvious, then, that the possibility of an impaired pilot putting others at risk is so substantial that the interests of larger numbers of soldiers or, especially during combat, of military necessity must prevail. The military has established specific guidelines for physicians to ground pilots, which all pilots know. It follows, then, that there is a decreased ethical argument that military physicians need to take initiative to warn pilots either to treat them equitably or to avoid deceiving them.<sup>30</sup>

In a specific situation, with a specific pilot, however, the gain to the military from a pilot's being grounded may be negligible and the harm to the pilot significant. On this basis, the military physician could be more justified in exercising discretion, but, if there are such clear guidelines, the physician's doing so and violating these guidelines may put the physician at some risk.

This concern regarding physicians' own self-interest can be regarded in two ways. It may be that physicians should never take risks of this kind for their patients because among other reasons, such as their own interest, this may impair their capacity to care for their patients optimally. Physicians who make such sacrifices may experience fear of adverse repercussions to themselves and then resent patients who have played a role in causing this fear. This resentment may then interfere with their giving the patient proper treatment and their relating to the patient with the unconditional regard and warmth that would be necessary to establish an optimal patient-physician relationship. I shall discuss the significance of military physicians establishing and maintaining this attitude of uncondi-



tional regard in more detail shortly.

According to the above view that military physicians could be justified in taking on no risks, physicians taking significant risks would not be morally required, because this standard would be too high. Rather, to use the distinction posed by ethicists, such acts of self-sacrifice might be particularly praiseworthy, or even heroic, but not morally obligatory.

The other way of viewing military physicians' self-interest is to regard this interest as only one factor among others that should be taken into account when these physicians decide what to do. From this perspective, the need for physicians taking on personal risks will be inevitable because regulations cannot adequately take into account all situations that may occur. Thus military physicians may unavoidably take on personal risks if they ever decide to exercise discretion by not reporting soldiers when regulations taken literally require them to do so. This distinction applies to all cases in which military physicians may be more justified in exercising their discretion than in adopting a military role-specific ethic and exercising none.

### *Evaluating Impaired Commanders*

Military physicians also may have to decide whether to exercise discretion when they have patients with exceptional military authority who have medical conditions that could interfere with their capacity to exercise sound judgment. When this occurs, military physicians have heightened obligations to the military and, indeed, the nation, because if these patients make poor decisions because of their medical conditions, these decisions could affect many soldiers' lives and even the society at large.

This concern is illustrated most clearly in regard to the president or a senior military officer. If there are indications that the leader's cognitive capacities are impaired, military physicians may have an obligation to serve the nation's interests by reporting this disability. This same question may arise in regard to patients with far less responsibility, as the following case demonstrates:

**Case Study 12-1: The Alcoholic General.** A military physician was treating the wife of a general after she had become depressed following surgery for colon cancer. In the course of his discussing her life situation with her, she revealed that her husband was addicted to alcohol. This general strongly influenced the formation of military policies and had thousands of soldiers under his com-

mand. The patient was adamant, however, that she did not want her physician to disclose to the military what she had revealed to him in confidence. The physician believed that legally he might be obligated to pass on this information to command due to the interests of the military, but he decided, nonetheless, to exercise his discretion by respecting his patient's confidentiality.

**Comment:** If the physician had reported that this general was addicted to alcohol, it could have helped him medically as the military could have forced him to receive treatment. It also could have ruined the general's military career and, due to the wife's having disclosed this, the couple's marriage as well. In the physician's opinion, this action also would have had only marginal benefits on how the general performed and possibly would have had adverse consequences for the military because soldiers would lose trust in military physicians maintaining confidentiality. This physician's decision to exercise discretion would be supported, in addition, by another factor—the physician's implicit promise to the patient. The patient presumably believed that the physician would keep her communication confidential. The physician could have warned her that he might not respect her confidentiality before starting to see her, but he had not. If he had, this might have adversely affected her ability to trust him. It might have even precluded the success of the therapy.<sup>31</sup> His not having warned her when he could have makes the case for respecting her confidentiality still stronger.

This example is paradigmatic of others that arise regarding whether military physicians should adopt a military role-specific ethic and routinely violate patients' confidentiality without warning them or whether they should warn their patients routinely that they would or may report them.<sup>32</sup> Whether or not to warn patients and whether or not to violate patient confidentiality may best depend, however, on the specifics of the situation or case, as I shall now discuss.

### *Violating Patient Confidentiality*

Again these cases should be considered as falling along a continuum. The argument that military psychiatrists should violate patients' confidentiality is stronger in some than in others. The following case is an example of a situation in which a stronger argument can be made for military physicians not violating confidentiality, invariably, but instead using discretion.

**Case Study 12-2: Confidentiality and the Rape Victim.** A young woman came to a military psychiatrist to obtain psychiatric counseling after alleging that she had been raped. Because the alleged rapist was a soldier, his defense attorney requested the psychiatrist's notes. The

psychiatrist had not informed the patient beforehand that this could occur. The patient's mother went into the psychiatrist's office, found his notes pertaining to her daughter, and attempted to destroy them before the psychiatrist and others could restrain her.<sup>33</sup>

**Comment:** Although the patient's confidentiality was violated, the national security issue was minimal in this case. The military physician's ethical obligation to protect the patient's confidentiality in this instance is greater because the physician's violating it fails to serve the military mission. Current military law may still require that he give the chart to the defense attorney, but if this is so this is an instance where there may be discrepancy between what is ethically optimal and what is presently military law. Ethics is often "ahead of the law." That is, the only justification for depriving soldiers of "ethical rights" they would have as civilians is needs of the military mission related to combat or national security. When these needs are absent, the justification for a different policy generally doesn't exist. (Since the time this event occurred, the rules have been changed to protect patient confidentiality to a greater extent.<sup>34</sup>[§2]) As in the above case involving confidentiality this has begun to be recognized; it also has been recognized recently in regard to service persons having psychiatric illness. The requirements for involuntary commitment and the use of psychotropic agents over and against soldiers' objections were once quite discrepant for soldiers as opposed to civilians. Now, they are much more similar. Bringing this principle fully into law has, however, just begun.

### **Using Discretion When Treating Soldiers With Marginal Problems**

There are two arenas in which military physicians should exercise discretion in the treatment of soldiers who have marginal problems. These are: (1) when deciding whether or not to report soldiers who have minimal substance abuse problems; and (2) when treating soldiers with problems not related to military performance. Although it may be comforting for physicians to always follow the "letter of the law," it is not always of benefit to their patients, nor is it always required.

### **Reporting Soldiers With Minimal Substance Abuse Problems**

In general, military physicians follow the same priorities as civilian physicians when soldiers have problems with alcohol and drug abuse.<sup>35,36</sup> For example, the Army prohibits commanders from prosecuting soldiers who enroll voluntarily in rehabilitation programs.<sup>37</sup> Their substance abuse problems are also kept confidential unless doing this could have highly significant adverse effects on others, the military, or the nation.

Although these provisions might appear to relieve military physicians from ethical dilemmas in regard to soldiers who have problems of substance abuse, in reality they may not. Soldiers may fear that if they enter substance abuse programs, they will lose their potential for "fast-track" or optimally rapid promotions, or that if the total number of service members is reduced (ie, through a reduction in force or "RIF"), their substance abuse will be a consideration working against their being retained. (Some service members have the same fears, whether valid or not, in regard to seeking psychotherapy from military psychiatrists.) Military physicians encountering soldiers whose findings barely meet the criteria for referral to a rehabilitation program must decide, therefore, whether to follow a military role-specific ethic (ie, "go by the book" and report them) or to exercise discretion.

In this instance, physicians using no discretion would report all, inflexibly. Physicians using discretion, however, further justice in the sense of fairness by treating service members individually on the basis of what is best for the patient in light of all relevant moral considerations, such as those that I will discuss next.

Soldiers' "failing" in rehabilitative programs may be discharged from the military. Thus, the above question regarding military physicians adopting a military role-specific ethic or using discretion may arise when soldiers have generally done well but not met all criteria for successful rehabilitation.<sup>36</sup> Then, as when military physicians must decide whether to refer service members to substance abuse rehabilitation programs over their objection, military physicians must decide whether to adopt a military role-specific ethic or exercise discretion, as represented in the case that follows.

**Case Study 12-3: The Soldier and the Positive Urine Test.** A soldier who had served for over 19 years in the military had only months to go until she retired. She had completed a rehabilitation program but during a follow-up visit showed a barely positive urine test for an antianxiety drug that she was not permitted to take. She admitted she had taken this medication to alleviate a transient acute episode of anxiety. Her psychiatrist had to decide whether or not to report this episode, knowing that as a consequence this patient would be discharged from the military just prior to her retirement date and thus would lose her right to retirement pay. The psychiatrist reported the violation and the patient was discharged from the military prior to reaching 20 years of service.

**Comment:** Most members of the rehabilitation staff believed adamantly that this single, "marginal violation" should have been ignored and they felt enraged. They believed that because she was close to retirement and

had given more than 19 years of service to the military, it was unjust to deprive her of the retirement benefits, which she otherwise had earned, on the basis of her “erring” by taking this medication to relieve her anxiety. The physician was, of course, following a military role-specific ethic. The staff who objected wanted the physician, instead, to use discretion. The discharge stood and the patient was denied retirement pay.

Among the considerations affecting this and similar cases, of course, is that if the physician does not “go by the book” and report the soldier, the physician, in principle and practice, would be committed to determining what criteria to use to decide every other case as well. This might violate the ethical principle of consistency. That is, this principle requires that persons respond the same way in similar cases unless there are morally relevant features that distinguish one case from another and, thus, warrant one case being treated in a different way from another. Otherwise, the ethical decision in each case is, at its core, arbitrary. Stated differently, if the military physician does not act consistently in these cases but exercises discretion in some, but not in other cases, the physician enters a slippery slope. The physician has opened the door to making decisions on a basis other than “the letter of the law” and the task of fulfilling the requirement of equity or justice by treating like cases the same will be harder. The physician may then make these decisions subjectively without the physician knowing or intending this. These decisions thus would be arbitrary. The physician would, then, be vulnerable if exercising discretion to deciding on the basis of subjective factors. This would violate the principle of equity. Thus, although the physician’s not using discretion seems overly rigid and lacking in compassion, the use of a military role-specific ethic, even in this kind of case, furthers the ethical principles of equity and consistency. I am proposing, however, that even though using the military role-specific ethic achieves these values, in situations involving soldiers with marginal problems, military physicians preferably should exercise discretion because the potential for harm to the military mission is absent or remote.

### *Treating Soldiers With Problems Not Related to Military Performance*

As previously suggested, military physicians face a dilemma when taking a patient’s history. If they ask about soldiers’ prior sexual experience or whether they use an illegal drug, such as marijuana, military physicians may believe that they have a

duty to inform these soldiers’ commanders to assess them for homosexual activity or to refer them to substance abuse programs for formal evaluation, respectively.

Yet, because the interest of the military is sufficiently small in such cases, it may be that in these particular cases military physicians should act primarily to further the interests of these patients. At the far end of this continuum, this could be called a medical role-specific ethic, and the military physician should again not exercise independent discretion. This role is the opposite of the role-specific ethic in which the physician follows military requirements without using discretion, as previously considered.

What should the criteria be under which this patient-centered ethic, as opposed to discretion, should be applied? The general criteria I am suggesting here that military physicians may consider as sufficient grounds for adopting the patient-centered or medical as opposed to military role-specific ethic are these two: (1) when the patient has a clear medical interest, and (2) the military has virtually none. Consider, as examples, the following two cases:

**Case Study 12-4: The Affair.** An active duty service person asked by his physician how he was doing reported that he was having an affair. The physician reported this to the service person’s commander.

**Comment:** In this instance, both the patient and the physician’s colleagues were upset with the physician for reporting this “admission” to the commander. The colleagues believed that it was critical that they retain the option to discuss such behaviors with patients confidentially. They believed that the bearing of this behavior on the military mission was negligible, whereas their need to discuss this issue with patients was extreme. This is one instance where the need for military physicians to follow a medical model may be, as it was in the eyes of these other military physicians, absolute.

**Case Study 12-5: Separation Anxiety Mistaken for Alcoholism.** A soldier was being medically discharged and had made arrangements to begin a high-paying job in a distant state. A few days prior to the completion of his medical board and his leaving his wife to begin the new job, this soldier became inebriated and tearfully expressed to his wife his fear of going away without her. The wife called the husband’s internist asking what she should do. The internist, in turn, called a military physician who had seen the patient during his prior hospitalization. The physician decided to put a hold on the medical board and to send the patient to the substance abuse program for evaluation because he believed this patient’s behavior possibly reflected a previously unidentified problem with alcohol. He also believed that he was required



by his military role-specific ethic to support the military's interest by reporting any illness that could have possibly contributed to the medical problem for which the patient was being retired from the service. After explaining what had happened in detail to his new employers and postponing his beginning his new job so that the military could thoroughly evaluate his alcohol use, the patient was found to not have a problem with alcohol, went to his new job, and subsequently was joined by his wife.

**Comment:** The physician's requiring the patient to be evaluated could have jeopardized his new employment opportunity even though he had no problem with alcohol. As it was, it caused this soldier substantial difficulties. The military physician had a number of options available. First, he might have furthered the patient's interest more by calling the patient in for consultation and evaluating him as he would have had the patient been a civilian. Instead, this physician adopted a military role-specific ethic. There is, then, this argument for his exercising discretion. Otherwise, the concept of the military mission or military necessity can be used in a literally infinitely elastic way. All the choices of military physicians could be made on the basis of a military role-specific ethic and justified on the grounds that no matter how indirect or remote they fulfill "the mission."

### **Counseling Soldiers With HIV Who Endanger Third Parties**

Soldiers with human immunodeficiency virus (HIV) may endanger other persons.<sup>38</sup> Some of these soldiers are homosexual; others acquire HIV infection by other means, such as intravenous drug use or transfusions. All such soldiers are subject to limitations regarding their overseas deployment.<sup>39</sup>

An ethical issue military physicians often confront has to do with protecting third parties.<sup>40,41</sup> Two situations are illustrative: (1) soldiers who have not informed a sexual partner that they have HIV, and (2) soldiers who pose a danger because they may engage in unprotected sex with others. These situations differ in many respects but one that is particularly important is that in the latter situation the identity of the persons endangered cannot be identified because these liaisons have not yet occurred.

### **Protecting Identified Third Parties**

The more common of the two situations is when soldiers with HIV infection are unwilling to inform their spouse or sexual partner that they are infected. States vary greatly in their laws regarding what civilian physicians should do in this situation. In some states physicians must protect patients' confidentiality; in other states they must initiate contact tracing. In some states they are legally protected

whatever they do; in other states they can be sued regardless of what they do.

The questions originally posed for the military when HIV and acquired immunodeficiency syndrome (AIDS) were first identified were what policy the military should have and whether it should differ because of exigencies unique to the military. In 1987 the military adopted its own policy that requires military physicians to take action to inform contacts who are on active duty or are beneficiaries of military medical care so long as soldiers identify them specifically as contacts.<sup>42</sup>

This policy leaves several ethical questions unanswered. Suppose, for instance, a soldier with HIV has an ongoing relationship with a partner in the military, but is unwilling to tell that partner that he is infected. If asked about partners, the soldier could deny that he had a partner and state that he acquired the infection from a prostitute or a person whose name he does not know because it was a "one night stand." The military physician could attempt to trick the soldier into sharing the identity of his partner by allowing the soldier to believe that this information would be kept confidential. However, this would destroy the physician's ability to work with that patient.

To respect such soldiers' autonomy, it would be necessary to inform them beforehand that if they identify their partners but will not inform them themselves, the military physician will take action to try to insure that the partner is informed. With this warning, however, these soldiers may deny the existence of these partners or not give their identities. This may cause innocent third parties to risk becoming infected with HIV, or if they are already infected, to not be informed, and thus not receive treatment.

Notwithstanding this obvious harm, there are strong, though less obvious, arguments for warning such soldiers. Military physicians giving this warning, and therefore allowing these soldiers to choose whether or not to reveal the identity of their partners, might paradoxically enhance their likelihood of being able to persuade the soldier over time to inform the partner or at least to divulge the partner's identity. Legal requirements do not preclude their giving this warning, though they may be seen as implying that these physicians should not warn them. Giving priority to maintaining an optimal therapeutic relationship with such soldiers may maximally benefit not only third parties but also these soldiers themselves. That is, over time they may be able to persuade these soldiers to tell their partners themselves. This may be better for



these soldiers because they may be better able to “live with themselves” over the long run. By exercising discretion in this case, then, it is possible that third parties will receive important, even lifesaving, information while the patient–physician relationship is preserved.

This same outcome would be brought about even under military law if the partner were not on active duty and not a recipient of military medical care. This is because even if a soldier identifies the partner, the military has no requirement to inform him or her. Military physicians still might be required to warn such partners, however, if this were required by state law. Military physicians’ legal obligations may vary depending on the laws of the state within which they practice, but when state law should apply is often controversial.

But what if military physicians learn partners’ identities without routinely warning soldiers with HIV that they will inform partners of their HIV status? Should military physicians exercise discretion in this situation or should they adopt a military role-specific ethic and inform partners? Military physicians have made an implied general promise to all soldiers to act in the interests of greater numbers of soldiers as opposed to those of their individual patients when the two conflict. This promise carries overriding moral weight for the reasons previously discussed when military physicians perform triage or treat soldiers with combat fatigue during battle. Informing third parties may protect them, but it is empirically open to question whether this approach will benefit most soldiers in the long run. Should this obligation to act in the interests of greater numbers of soldiers apply in a context like this where military combat interests are negligible? If it should apply, to what extent? This question is as open to military physicians deciding either way as any ethical question.

### *Protecting Unidentified Third Parties*

In 1988, the Department of Defense issued a directive designed to protect third parties still further.<sup>43</sup> It established that active duty service members who have HIV infection and have been counseled regarding the risk they pose to others must practice protected sex or face criminal or administrative repercussions.

This directive may go as far as any regulation could go to protect third parties from patients with HIV who have no exceptional emotional problems, and thus can be significantly deterred by the threat of punishment. It may be of little help, however,

when patients with HIV have emotional problems such as severe depression or psychosis. This is especially the case if there is loss of impulse control that may be associated with the course of these psychiatric disorders. In these situations they may “act out” and there may be little that regulations can do to deter this behavior.

What should military physicians do in the case of a patient with HIV who also has a psychiatric disorder? Suppose, for example, a service member with HIV comes to a military physician to receive treatment for a recently acquired and painful venereal infection. Military physicians could follow a military role-specific ethic and automatically refer such a patient for criminal or administrative proceedings. Or they could use their discretion and admit soldiers whom they believe may have impaired impulse control (because of underlying mental illness) to the ward for evaluation. If, for example, they believe a soldier is depressed and has decreased impulse control for this reason, they may admit him for depression as opposed to referring him for administrative or criminal proceedings.

This problem is faced by military physicians’ civilian counterparts who also must decide what, if anything, they can and should do when patients with HIV pose a threat to other persons. A factual difference is that military physicians have an obligation in the military to serve greater numbers of soldiers over individual patients. They have also made a prior implicit promise to protect all soldiers to the extent that they can. Ethically, military physicians in this situation may also have more discretion and, indeed, justification for confining such soldiers. In such a situation the soldier could be confined to the ward for treatment for depression, at least for a short while, because a medical discharge from the military may be possible or necessary.

Generally, military physicians can psychiatrically hospitalize soldiers against their will when they pose a danger to themselves or others. (Civilian physicians can, of course, do this as well, though the extent to which it is likely they are “dangerous” varies according to state law.) By doing this, they could protect others and, hopefully, benefit soldiers who temporarily endanger others because they have illnesses such as depression, perhaps brought on by their acquiring HIV. Furthermore, if such soldiers are hospitalized, they can be treated, instead of having criminal proceedings initiated against them. In this instance, because extremely large numbers of soldiers are not endangered, military physicians would not have an absolute obligation to adopt a role-specific ethic by reporting these sol-

diers and exercising no discretion. Rather, they would be justified in exercising their discretion by confining some of these soldiers to the ward so that unknown soldiers at risk of being infected by them could be protected and so that these soldiers with HIV could maximally benefit. In taking this course, which would most benefit these patients, they would be following the principle of placing these patients' interests first, which is, of course, the core moral value of civilian physicians.

### **Meeting the Clinical Needs of Soldiers With Psychological Disorders**

Due to recent legal enactments<sup>44-46</sup> soldiers generally have rights comparable to those of civilian patients when facing involuntary commitment for mental illness. Nonetheless, military physicians still may have greater capacity to hospitalize such patients and to take certain preventive measures, because soldiers may have exceptional access to dangerous weaponry. For example, military physicians can take initiatives to remove this weaponry when soldiers are a danger to themselves. In this instance, military physicians might be justified in doing more than civilian physicians could do, not on the basis of the military's need but rather on the basis of their patients' needs. In such a situation they would be acting on an absolute medical role-specific ethic but taking this one step further. They would act to take away these soldiers' weapons to further benefit these soldiers, though they might not be able to do this if these patients were civilians.

In other instances, however, they might give less optimal care than they otherwise would, to meet soldiers' best "medical interests." For instance, what should military physicians write in soldiers' medical charts? In the past, for example, many military psychiatrists who saw soldiers who were homosexual relied on writing euphemisms in the chart, such as stating that patients who were homosexual had "psychosexual confusion." They believed that investigators viewing these records would not understand their meaning, though other physicians would. They also believed that investigators would not be able to use these statements against these soldiers' interests.

Investigators used these records, however, to confront soldiers whom they suspected were homosexual. Oftentimes these soldiers acknowledged, under the duress of these "interrogations," that they were homosexual and were then discharged from the service. Over recent decades there have been

more strict regulations<sup>47-49</sup> and greater intolerance of these approaches. This has resulted in the privacy of service members' medical records being better protected; military hospital authorities can refuse to release records unless ordered to do so. There is, however, another option available to military physicians. They can follow an absolute medical role-specific ethic by being more vague in their chart notes, thus avoiding any entries that could imply homosexual behavior (or, for that matter, adultery). By so doing they can better protect their patients from military prosecution for homosexual conduct or adultery, both of which remain violations of military law.

### **Counseling and Treating Suicidal Soldiers**

As with any individual expressing a desire to commit suicide, the physician must evaluate how genuine that expression may be in order to appropriately counsel and treat such a patient. In the military the situation can be somewhat more complicated than in a civilian setting inasmuch as soldiers may feign suicidal thoughts and feelings in an effort to be administratively discharged.<sup>50-54</sup> The military physician, attempting to further military ends by not opening up "the floodgates" to other soldiers seeking this same "exit route," may err in either of two ways. In the first of these, the physician may deny that the suicidal intent is genuine. As a result, such patients may kill themselves, though military physicians could have prevented this by taking other approaches.

Alternatively, they may agree that the suicidal intent is genuine. In this case, the appropriate response would be to give the patient a trial of temporary limited duty, during which they provide the patient psychotropic medication and short-term psychotherapy. The goal of this approach is to determine whether the military environment is the source of distress in such patients. If that is the case, and they could do well if discharged from the military, they may be harmed also by remaining in the military and taking medications they do not otherwise need. As a result of taking these medications, they may suffer long-term negative effects. Furthermore, they may attempt suicide and die as a result of not having been removed immediately from the source of their stress.

Because these patients may be genuinely suicidal or harmed substantially by any treatment other than immediate discharge from the military, military physicians' medical obligation to such patients may

warrant having highest priority. However, military physicians adopting a patient-centered ethic in cases such as this may be possible only if military policy changes. This may involve permitting soldiers who request discharge to be discharged after a briefer waiting period, or discharged on request. This policy may not have significant adverse effects on the military if there are more persons who want to join the military than there are spaces. If this were the case, this would be another instance in which ethics might be ahead of the law (ie, military physicians could be allowed to discharge suicidal patients immediately during basic and advanced individual training periods as opposed to taking an increased risk that they could kill themselves by keeping them on active duty).

### ***Counseling and Treating Soldiers With Eating Disorders***

Military physicians also face conflicts in regard to treating their patients optimally when their patients are mentally ill and likely to respond to treatment but military policies make this difficult. An example is when persons in the military academies demonstrate eating disorders while they are in the academies. Students diagnosed with these disorders may be excluded from further military service. Moreover, if they had these problems prior to joining the military, and concealed that fact on entry, they may be subject to prosecution for fraud.<sup>55</sup> As a consequence, students having these disorders may choose not to come for treatment. Military physicians may overcome this reluctance by engaging in deceit and treating these students for “adjustment disorders” and not reporting or recording in their charts any symptoms they encountered prior to entering the military.

Whether military physicians should “game the system” in this manner is open to question, but what is clear is that they cannot both treat these patients successfully, which is their primary role, and, at the same time, serve an investigatory function. The conflicting obligations these military physicians face are like those physicians face when conducting epidemiological studies on soldiers with HIV or research on soldiers with possible problems of substance abuse. They cannot both do this research and at the same time report service persons for violations such as engaging in homosexual acts or using illegal drugs. Doing this research and reporting these soldiers should be mutually exclusive actions. Ultimately all these conflicts can be resolved only

by changing the military policies. As a result of military physicians’ efforts in regard to soldiers with eating disorders at the service academies, policies now make it easier for students in this situation to receive treatment.<sup>56</sup>

### **Prioritizing the Needs of Patients Over the Needs of the Military**

The needs of the military are relatively apparent at first blush: The military needs to be ready to deploy as a force capable of accomplishing the mission it is given. However, the needs of the military are not necessarily always supreme over those of the patient. Thus there can be a need to prioritize the individual’s needs against those of the organization. There are three arenas in which this is most needed: (1) deciding what to do with prejudicial information that is acquired during medical research; (2) evaluating homosexual soldiers who have security clearances; and (3) meeting the medical needs of homosexual soldiers. Each of these will be discussed in some detail.

### ***Acquiring Prejudicial Information While Conducting Medical Research***

This same kind of conflict arises, as I just indicated, when military physicians wish to conduct certain kinds of research. For example, research may be carried out to determine what medical factors result in soldiers being relieved from duty in overseas assignments. This information, like epidemiological data regarding HIV, could help the military by suggesting interventions that could enhance soldiers’ capacity to continue to serve in these settings effectively without having to be relieved.

Military physicians, however, have a general obligation to report soldiers who have problems with alcohol or drugs. The military rationale for this requirement is that improper use of these substances could impair soldiers’ capacity to be effective. The military has not established an exception that would allow military physicians to not have this reporting requirement when they conduct research. By reporting these soldiers, military physicians could help these soldiers obtain treatment; however, they implicitly deceive them if they conduct research without informing these soldiers that they might report them for any illegal activities the researchers discover in the course of the research.

If military physicians are not deceptive but fully warn soldiers of their reporting requirement, they

could tell them the truth but then they would probably not acquire meaningful data. If the military established an exception such that military physicians were permitted to keep this information confidential, they would be able both to avoid deceiving these soldiers and to obtain these data. However, as I shall indicate shortly, there may be good reasons that the military shouldn't establish such an exception.

When military physicians report soldiers who have problems with substance abuse, it may not be as likely to save large numbers of soldiers' lives or to be critical to the success of a combat effort. This is a situation in which military physicians would therefore have greater moral justification in exercising discretion to not report this behavior. They could also use discretion if before they ask soldiers about their use of these substances, they would divulge to them that they would have to report any affirmative answers.

Research regulations now require military physicians to inform these soldiers in general terms that researchers cannot guarantee confidentiality and that they face possible risks by becoming a subject in the research. This requirement is based on the need for such disclosure when obtaining informed consent, as first enunciated in the Nuremberg Code. Unless the institutional review boards that review this research for its ethical acceptability require researchers to inform subjects more specifically how their divulging misuse of alcohol or drugs will affect them, however, researchers do not have to do so. Whether military physicians or others giving subjects this information initially should give this specific information is now left to their discretion.

Some soldiers who misuse alcohol and drugs will discern on their own that the risks of their disclosing self-incriminating information exist. Others, however, will not. An additional value therefore that should affect military physicians' decision making in these situations is equity. Only by taking initiative to insure that all soldiers understand the full ramifications of their making self-incriminating disclosures can they insure that all soldiers know this. Only this can insure equity.

If military physicians do not take this initiative, there is an additional, more subtle harm also brought about. The soldiers who suffer the effects of incriminating themselves are not on a par with those soldiers savvy enough to discern on their own that they face these risks. Thus, these less savvy soldiers are worse off in this respect than those who, due to being more savvy, can avoid the risk of incriminating themselves. Thus, military physicians

not giving this warning would not only violate equity; it would discriminate against those less capable of protecting themselves in this situation.

### *Evaluating Homosexual Soldiers Who Have Security Clearances*

When soldiers have access to classified information they could divulge military secrets, in which case the nation's security may be compromised.<sup>57</sup> If national security is truly at stake, military physicians have greater justification in giving priority to national interests even when this would violate patients' interests. However, if protecting military secrets isn't necessary for national security concerns, the justification is greater for military physicians to give patients' interests priority by exercising some discretion.

This discretion would involve the physician making an independent assessment of such factors as the magnitude of risk to the military and its likelihood, and weighing these factors against the magnitude and likelihood of harm to the patient. An example in which military physicians had to decide whether to use discretion occurred when HIV infection first emerged among soldiers.<sup>58</sup> Military physicians had to choose whether to protect the military from unlikely risks to security or to protect these soldiers from certain harm to themselves.

To understand how this occurred, it is necessary to understand that historically homosexual soldiers have been excluded from the military on two rationales: (1) they were considered a security risk, and (2) they were viewed as potentially disruptive to troop morale.<sup>59,60</sup> The former rationale was based on the presumption that soldiers who were homosexual were exceptionally vulnerable to extortion. This presumption overlooks the fact that soldiers who are heterosexual and commit adultery may be at equal or greater risk of extortion. There has also been the concern in the US military that the presence of homosexuals in a unit could be disruptive to unit morale. This is perhaps the only possibly sound reason that engaging in homosexual acts remains an illegal activity under the Uniform Code of Military Justice (UCMJ).<sup>61</sup> (See Chapter 6, Honor, Combat Ethics, and Military Culture, for a further discussion of this topic.) Ultimately, this question is, of course, empirical. Persons with homosexual preferences have served effectively in militaries throughout history. Whether this present policy is empirically valid, or rather reflects bias, is therefore in doubt.

After HIV emerged, the need arose for the mili-



tary to ascertain, to the degree possible, both the true prevalence of HIV infection among soldiers and its etiology. These findings were considered necessary to determine what policies should be adopted in the military to limit the number of soldiers with HIV, both entering the military and acquiring it once they have joined.

A difficult ethical question arose in regard to soldiers who had HIV and were homosexual. On one hand, it was felt that if these soldiers acknowledged that they were homosexual, military researchers should adopt a military role-specific ethic, exercise no discretion, and report these soldiers' homosexuality to their commanders. Homosexual behavior was, after all, against military law and posed a risk, so it was believed, to national security and troop morale. These researchers could, on the other hand, have warned soldiers what would happen to them if they divulged that they were homosexual. This would, of course, have protected them from making unwanted disclosures resulting in adverse repercussions.

In 1985, to facilitate accurate epidemiological studies regarding HIV and AIDS, Secretary of Defense Weinberger granted immunity to soldiers with HIV if they disclosed that they were homosexual during epidemiological assessment. However, they could still be administratively discharged if knowledge of their homosexuality was obtained independently.<sup>62</sup> In 1986, Congress gave these soldiers greater protection by passing legislation that protected soldiers with HIV from involuntary separation and other actions adverse to their interests<sup>63</sup> if they acknowledged during epidemiological assessment that they were homosexual. However, denial or revocation of soldiers' security clearance and access to classified information was not categorized as an adverse action. Consequently, soldiers who divulged that they were homosexual during epidemiological studies risked undergoing these repercussions.

Controversy arose over whether soldiers with HIV having security clearances should be protected from these repercussions.<sup>64</sup> If military researchers sought out this information and then reported it, they would harm these patients. Military researchers had another option, not precluded by military law. During epidemiological assessment, they could tell these soldiers what the potential consequences could be prior to asking them if they were homosexual. Whether or not these soldiers would then take this option of acknowledging that they were homosexual was left to their discretion. If military researchers gave priority to the military's security interest, they would, of course, not inform these

soldiers that if they acknowledged that they were homosexual, they could lose their security clearance. If they informed them of this possibility, they would protect them from this harm, but, at the same time, invalidate their epidemiological assessment.<sup>65,66</sup>

In this instance the risk of harm to the military if military physicians did not report these soldiers' homosexuality was uncertain but the risk of harm to these patients significant and certain. On these grounds, military physicians had reasonable ethical justification for exercising discretion. Consequently, military physicians' optimal ethical response could differ qualitatively in this instance from the responses during combat previously considered. As opposed to adopting an absolute military role-specific ethic, they may have been justified in using discretion or, even, perhaps in adopting an absolute medical role-specific ethic. If military physicians exercised no discretion and acted strictly according to a military role-specific ethic, as they should in the prior combat situations, they would not only implicitly deceive these soldiers by omission; they would entrap them.

### *Meeting the Medical Needs of Homosexual Soldiers*

Military physicians' obligations when they see pilots also stand in sharp contrast to their obligations when they see soldiers who are homosexual but, unlike those previously considered, do not have HIV. If this situation involving pilots lies at one end of a continuum at which military physicians may be rightly regarded as being morally justified in exercising little or no discretion, situations involving homosexual soldiers who do not have HIV lie at the other.

As already discussed in some detail, homosexual conduct has been and continues to be unlawful in the military. The circumstances that require military physicians to report soldiers when they imply that they are homosexual remain controversial.<sup>67,68</sup> Some physicians assert that even if soldiers strongly imply that they are gay, this is not direct evidence that they engage in homosexual conduct. Accordingly, military physicians may say to such individuals at this time, "On the basis of what you have told me, you may or may not be currently engaging in sexual conduct with persons of the same sex. If you tell me more, I may have to report you."

Other military physicians see this as collusion with these patients to undermine military law. However, if these or any soldiers even only could have uncertainty regarding military physicians' le-

gal requirements, a “warning” ethically may be justifiable, if not mandatory, to respect such soldiers’ autonomy to a degree minimally necessary. Still other military physicians believe that they have an obligation to follow up to see if soldiers who give any information suggesting that they are currently engaging in homosexual relationships are, in fact, doing so. This may include their asking soldiers to elaborate on answers they have given on psychological testing. An MMPI (Minnesota Multiphasic Personality Inventory) is such a test. It is usually carried out to help healthcare professionals provide better clinical care, but can be used to suggest the possibility of homosexual conduct.

As this last example involving homosexuality best illustrates, to respect soldiers’ autonomy military physicians must sometimes tell soldiers prior to their divulging potentially incriminating information what physicians will do with this information. In the case of military physicians who would follow up patients’ responses on the MMPI, this would require them to inform these soldiers prior to their taking this test that this is what they would do. The “price” of military physicians respecting soldiers’ autonomy in this manner is that soldiers they so inform will be less likely to disclose self-incriminating information on this test, making it less clinically useful. In this case, their either giving this warning or not using the test for this covert “military purpose” would represent their adopting an absolute medical role-specific ethic.

There are several considerations that favor military physicians giving warnings if they would report soldiers in these situations. First, and of far greatest importance, is that soldiers most likely would divulge such self-incriminating information only because, like the wife of the general, they believed it would be kept in confidence. Military physicians then using this information against these patients’ best interests would exploit these patients’ trust. They would use their professional role as physicians to exploit these patients’ vulnerability for the military’s ends. This is particularly problematic when military physicians have the opportunity to avoid this situation by warning patients but choose not to do so.

Military physicians have, of course, made promises, explicit and implicit, to the military as well. The ethical problem arises because even though military physicians and their soldier-patients know this, in some cases, these promises conflict with other values and in other cases it is unclear for soldier-patients how they would apply or soldier-patients have never learned that these military physi-

cians’ promises to the military exist.

In all these cases the ethical assumption is that military physicians should take the initiative to insure that the soldier-patient knows both that their promise to the military exists and how it applies. The key questions again are when, if ever, this should not be the case, and if so why? When this promise and its application have been made clear beforehand, military physicians’ following through on their prior promises to the military is essentially unproblematic.

Second, as stated, military physicians’ reporting soldiers without providing warnings discriminates between soldiers who err by being trusting and those who do not. This violates the principle of equity and is particularly morally problematic because those suffering adverse consequences would be soldiers who gave information honestly in the hope that this would help them. Thus, they would end up being “punished” for doing precisely what physicians ask, expect, and hope their patients will do. Further, this is what the military wants and expects them to do.

Military physicians can give their commanders good advice only if soldiers are honest with them. That is, the military simply cannot “have it both ways.” They cannot have military physicians both not warn soldier-patients and then “turn them in” and at the same time have military physicians able to maximize soldier-patients’ interests to obtain the most accurate information from them. If military physicians violate the soldier-patient’s trust, it can be expected that this will have a “chilling” effect, diminishing his capacity to trust military physicians. Thus, patients would not give military physicians the accurate information regarding their health that commanders need. The military, knowing this, does not expect military physicians to serve those two mutually exclusive roles, investigator and military physician, simultaneously. Thus, they have not prosecuted or taken administrative action against military physicians for not reporting, although they could.

And third, the goals of the military would be undermined by requiring military physicians to report all such patients. In regard to homosexual soldiers, for example, the military would want to eliminate soldiers from serving who show inadequate discretion because the result of this behavior could adversely affect the unit. However, this is also true of soldiers who are heterosexual and engage in sexual harassment. The tasks the military primarily wants its physicians to perform are to maintain the health of the troops and to inform

commanders accurately regarding the troops' health status. Military physicians violating soldiers' confidentiality by reporting them may diminish these physicians' ability to maintain the unit's health and to obtain accurate information regarding it because soldiers might not come for treatment or might be less honest if physicians violated their confidentiality. This was the concern of the military physicians (in Case Study 12-4) when their colleague reported the service member for adultery.

This may be a reason the military has chosen not to attempt to identify and punish military physicians who have not reported soldiers whom they know or strongly suspect have engaged in homosexual behavior. In fact, it may be optimal for the military to have strict regulations against homosexual conduct but to be lax in enforcing them. This logically contradictory reality may exist in many other contexts as well. For example, it may be optimal to have speed limits for traffic but to have police not enforce these limits when drivers only slightly exceed them.

Traffic officers must decide what to do when a car passes at 56 miles-per-hour in a 55 miles-per-hour zone. It would be possible for them to give all such speeders a ticket. They do not. Rather they use their discretion and give a ticket under these conditions only rarely, if at all. Why, then, do traffic officers not ticket such persons every time? Understanding the rationale behind their not ticketing every driver going 56 miles-per-hour is essential to understanding why military physicians must sometimes exercise discretion, as well. It is this: Having this law serves a major goal—it deters drivers from going too fast. It also, of course, provides a means by which particularly dangerous drivers can be stopped.

Not reinforcing this speed limit every time serves another, and more important, end than their ticketing all these drivers. It frees up their time so that they can do much more important tasks. If either goal alone were maximized, this would be at the expense of the other. The best means of furthering both these goals maximally, without significantly having to sacrifice either one, therefore, is to have a policy and practice that are in one sense contradictory: Having a strict law but, purposely, choosing sometimes to not enforce it.

As this example suggests, the military, despite having strict laws, sometimes allows and even intends for military physicians to exercise discretion. The military may intend that there is this "contradiction" between military policy and practice when it, and it alone, will enable the military to further maxi-

mally two mutually exclusive, important ends. In this example, strict laws prohibiting homosexual behavior deter persons who engage in homosexual behavior from entering the military, and, if they do, after they enter the military, from engaging in it in a manner that is blatant or indiscreet.

Allowing military physicians to not report this behavior enables military physicians to better fulfill their two most important goals. If military doctors do not report these soldiers, the likelihood is greater that these patients—and, indeed, others who do not engage in homosexual behavior—will trust military physicians. Trusting them more, they should more readily come to them for treatment. Only if they do can military physicians more maximally fulfill these two goals: Maintaining their units' health by treating soldiers and acquiring the most accurate information possible regarding the unit's health. In doing this, they give up, of course, their role as additional investigators who can identify and report criminal conduct. This is, however, the primary responsibility of others.

## **Overview**

It should be noted that in all of the examples in this section, there is theoretically a military role-specific ethic to which military physicians could comply without exception. Invariably, for example, homosexual soldiers could be reported and discharged; soldiers having problems with substance abuse, referred to rehabilitation programs; pilots, grounded; and soldiers with HIV who engage in unsafe sex, put in jail. The military must maintain these options because highly problematic cases will occur and the military must be able to deal with these situations in a manner that allows them under extenuating circumstances to maximally protect large numbers of soldiers and thereby the military mission. This may require military physicians to have conflicting administrative duties that may result in their having to choose to betray their moral obligations to their patients as physicians. This is necessary because of the heightened military concerns that are at stake.

This problem unavoidably arises because the policies allowing the military these special options are broad but not all soldiers will represent the kind or degree of threat these policies are intended to prevent or remove. The only way, then, to obtain the maximal benefit for both the military and these soldiers is for strict policies to exist but for military physicians to be free to exercise their discretion in ways such as those exemplified.

## THE EMOTIONAL EFFECT OF ROLE CONFLICT

Earlier in the chapter I mentioned the emotional effect of military physicians' knowing that they are allowing increased risks of their patients being unnecessarily harmed. This chapter has reviewed the many ways in which this might occur, ranging from treating soldiers so that their commanders can send them back to combat, to giving soldiers unproven pharmaceuticals, and even manipulating soldiers to try psychotherapy when they are threatening suicide. The emotional effect of military physicians choosing to meet the military's interests when they face these mixed agency issues may be substantial. These health-care professionals may unconsciously make this less painful over time by cognitively denying the real or potential harm that may affect these service members. If they do this, however, they may offer less to these soldiers because they have become more insensitive to their own and these patients' emotional pain. As a result they may offer less to the military as well.

Military physicians forced as a result of military exigencies to act in ways that they know may harm patients or even cause their death cannot help but experience this cognitive and, thus, emotional dissonance and moral angst. This dissonance and angst, for example, may occur when military physicians insist that soldiers alleging to be suicidal stay in the military longer as opposed to their serving as their advocates by requesting their immediate release. To relieve their cognitive dissonance, their minds may automatically inflate the rationale for resisting immediate release and deflate the rationales for requesting it. These physicians' empathy for these soldiers may decrease such that a hardening occurs within them towards not only these soldiers but all other patients, as well. This hardening may lessen the military physician, as both a physician and a person.

This effect may be mitigated if military physicians understand as well as possible the rationales for the military role-specific ethic having to prevail when it should. That is, military physicians knowing that they are acting in the only way they can to reduce significantly the potential loss of thousands or even millions of human lives may reduce their need to falsely inflate this or other rationales.

For their knowledge of the unequivocal needs for them to act in ways that will support the military mission to have this beneficial effect, the unequivocality

of these needs must, of course, be valid. This, then, is a secondary purpose of this and the other chapters in these two volumes on military medical ethics. That is, I hope this analysis will provide the most ethically valid arguments and criteria now available for military physicians to know when they must decide whether to follow their military role-specific ethic and when not to. With this knowledge, they can act with a clear conscience as opposed to moral angst, and, as a result, they, their patients, and presumably the military will be better off. In this regard they are like all military personnel who must at times make extraordinarily difficult decisions in a matter of moments, then live with the consequences for the rest of their lives. If they have a clear sense of why their actions were absolutely necessary, as established by ethically valid criteria, they can live with their deeds. The following case, although not that of a physician, clearly demonstrates the need for, and the value of, their knowing beforehand such ethically valid criteria.

**Case Study 12-6: The Surviving Submariner.** During World War II one of the most harrowing duties was that of a submariner. Survival of the ship, and thus its crew, depended upon everyone acting as part of a team, doing what was necessary for the benefit of the group, and oftentimes doing these things without hesitation. In one case in particular, a member of the crew had gone out on the deck of the surfaced submarine to retrieve an object he had left there. Just then word came that the submarine was about to be hit by a torpedo and thus it immediately had to dive. A sailor inside knew he had no choice but to shut the latch, leaving the sailor outside to drown, or else he would endanger the entire crew. He shut the latch.

**Comment:** Decades later the sailor who shut the latch still found that certain experiences triggered this excruciating memory. However, because he knew he had no choice if he was to save his fellow crew members' lives, he was able to cope with this memory.

In a similar manner, military physicians being aware of why they must in some cases follow a military role-specific ethic even when this harms individual soldiers perhaps may feel substantial relief from the pain they otherwise might feel both at that time and thereafter. Like the "surviving submariner" facing two horrific alternatives, they can gain relief from knowing they did the "least worst" they could have done.

## CONCLUSION

Military physicians face ethical dilemmas for which military law and regulations do not provide resolutions. The law cannot take into account pa-

tients' individual needs, such as those of the soldier who because of a problem with substance abuse was threatened with loss of her retirement pension



after 19 years of service. Furthermore, the law's ethical requirements are minimal. As an example, it does not require psychiatrists to give more than one warning during forensic examinations.

Several aspects of the military make it especially important that military physicians recognize the ethical dilemmas that confront them. Military exigencies provide unique ethical justifications for violating traditional medical norms; the military structure predisposes soldiers to be excessively compliant; and military physicians' identification with the military renders them unduly vulnerable to acquiring a skewed set of values. All these factors favor the interests of the military over those of their patients.

The core enigma underlying many ethical questions posed in the military is whether the military physician should adopt a military role-specific ethic, which favors military interests exclusively; exercise independent discretion, as when deciding whether to tell soldiers who want to be discharged from the military how the system works and, accordingly, how they could game the system; or assume a medical role-specific ethic, which favors patients' medical interests exclusively. There are criteria that potentially can help military physicians decide which of these three alternatives to adopt.

The bulk of this chapter has been occupied with articulating these criteria and giving examples to illustrate them. Basically, military physicians should adopt the military role-specific ethic when military exigencies are so substantial that this is required, use their discretion when highly significant adverse consequences to the military are reduced, and use a more patient-centered ethic when military exigencies approach being negligible. The boundaries between these three categories are indistinct and will change. Nonetheless, this framework may be helpful in providing at least a rudimentary guideline from which military physicians can proceed.

The anguish experienced by military physicians facing these conflicts is an additional factor that may affect their decision whether to adopt a role-specific ethic. Military physicians can act to attempt to

reduce this anguish in some contexts, however, in the same adaptive way any person can respond to situations that pose stress. They can take actions to attempt to benefit patients by changing military rules and regulations with which they disagree. This was exemplified by the military physicians who attempted to make it easier for students at military academies with eating disorders to seek treatment.

Civilian physicians are now facing problems similar to those faced by military physicians due to civilian physicians recently becoming more involved in managed care. Military physicians have much more capacity under "their" managed care system to influence how soldiers are treated than their civilian counterparts. Military physicians can take advantage of this greater opportunity to make policy that will allow them to maximally benefit individual patients and use their discretion to treat patients when possible in light of military necessities, as I have discussed in this chapter. This was best exemplified, for instance, in their using military prerogatives to take away service members' firearms when they pose a danger to themselves or others. This civilian doctors might find more difficult to accomplish, but military physicians could do this, not for the military as much as for these patients.

To benefit their patients and themselves by pursuing changes in policy in an endeavor to bring military law up to ethical standards, they must follow two practices: (1) they must be scrupulous in recognizing the ethical dilemmas whenever they arise, and (2) they must consistently bring them to the attention of military authorities who can address them.

The chapters in this first volume of the two-volume *Military Medical Ethics* textbook have "set the stage" for the reader to understand how it was that physicians came to be a part of the military and the ethical dilemmas that the melding of these two professions—medicine and military—can sometimes present. The second volume explores these issues in great detail, beginning with the crucible of military medical ethics: the chaos of the battlefield.

## REFERENCES

1. Daniels AK. In the service of the state: The psychiatrist as double agent. *Hastings Cent Rep*. 1978;8(suppl):3–6.
2. Howe EG. Medical ethics: Are they different for the military physician? *Mil Med*. 1981;146:837–841.
3. Howe EG. Ethical issues regarding mixed agency of military physicians. *Soc Sci Med*. 1986;23:803–813.
4. 10 USC § 3723.
5. AMA Council on Ethical and Judicial Affairs. Ethical issues and managed care. *JAMA*. 1995;273:331–335.

6. Howe EG. Managed care: "New moves," moral uncertainty, and a radical attitude. *J Clin Ethics*. 1995;6:290–306.
7. Brody H. *Ethical Decisions in Medicine*. Boston: Little Brown & Co; 1976: 261–262.
8. Veatch RM. *Case Studies in Medical Ethics*. Cambridge, Mass: Harvard University Press; 1977: 245–250.
9. Camp NM. The Vietnam war and the ethics of combat psychiatry. *Am J Psychiatry*. 1993;150:1000–1010.
10. Moskop JC. A moral analysis of military medicine. *Mil Med*. 1998;163:76–79.
11. Artiss KL. Combat psychiatry: From history to theory. *Mil Med*. 1997;162:605–609.
12. Howe EG, Jones FD. Ethical issues in combat psychiatry. In: Jones FD, Sparacino LR, Wilcox VL, Rothberg JM, eds. *Military Psychiatry: Preparing in Peace for War*. In: *Textbook of Military Medicine*. Washington, DC: Office of The Surgeon General, US Department of the Army and Borden Institute; 1994: 115–131.
13. Jones FD. Traditional warfare combat stress casualties. In: Jones FD, Sparacino LR, Wilcox VL, Rothberg JM, Stokes JW, eds. In: *War Psychiatry*. In: *Textbook of Military Medicine*. Washington, DC: Office of The Surgeon General, US Department of the Army and Borden Institute; 1995: 35–61.
14. Margo KL, Margo GM. The problem of somatization in family practice. *Am Fam Physician*. 1994;49(8):1873–1879.
15. Howe EG, Martin E. The use of investigational drugs without obtaining servicepersons' consent in the Persian Gulf. *Hastings Cent Rep*. 1991;21:21–24.
16. Mendez E Jr, Assistant Secretary of Defense (Health Affairs). Letter to Mason JO, Assistant Secretary for Health, Department of Health and Human Services, 30 October 1990. 55 Federal Register 52814 (1990).
17. US Food and Drug Administration. *Protection of Human Subjects: Guidance for Institutional Review Boards and Clinical Investigators. Information Sheets. 1998 Update*. Washington, DC: US FDA;1999: Appendix B: 21 CFR, Part 50. Available at: <http://www.fda.gov/oc/ohrt/irbs/appendixb.html>. Accessed 7 September 2001.
18. Clinton WJ. *Executive Order No. 13139: Improving Health Protection of Military Personnel Participating in Particular Military Operations*. Washington DC: The White House; 30 September 1999. Available at: <http://www.firebase.net/eo13139.htm>. Accessed 7 September 2001.
19. *Doe v Sullivan*, 938 F2d 1370.
20. Improving health protection of military personnel participating in particular military operations [Executive Order 13139, dated 30 September 1999]. 64 *Federal Register* 54175–54178 (1999). Available at: [http://www.enter.net/~jfsorg/OfficialDocuments\\_files/EO13139.htm](http://www.enter.net/~jfsorg/OfficialDocuments_files/EO13139.htm). Accessed 24 October 2001.
21. Tomich N. Physician faces court-martial over vaccine. *US Medicine*. 2001;37(2):1.
22. Nass M. Anthrax vaccine, model of a response to the biologic warfare threat. *Infect Dis Clin North Am*. 1999;12:187–205.
23. Schneider CE. *The Practice of Autonomy*. New York: Oxford University Press; 1998.
24. Belihar RP. Use of investigational drugs and vaccines in the theater. Presidential Advisory Committee on Gulf War Veterans' Illnesses, Public Meeting, Use of Investigational Drugs and Vaccines in the Gulf War. Panel meeting (afternoon session). Kansas City, Mo. January 12, 1996. Available at: <http://www.gulflink.ods.mil/cgi-bin/texis/search/gulfsearch> [search on "belihar"]. Accessed 24 October 2001.
25. Hopkins JET, Stelling HG, Voorhees TS. The marauders and the microbes. In: Stone JH, ed. *Crisis Fleeting: Original Reports on Military Medicine in India and Burma in the Second World War*. Washington, DC: Office of the Surgeon General, Department of the Army; 1969: 293–396.

26. Condon-Rall ME, Cowdrey AE. *Medical Service in the War Against Japan*. Washington, DC: Center of Military History, US Army; 1998.
27. Beecher HK. *Research and the Individual: Human Studies*. Boston: Little Brown & Co; 1970: 209–210.
28. Colback EM. Ethical issues in combat psychiatry. *Mil Med*. 1985;150:256–265.
29. Ursano RJ, Jones DR. The individual's versus the organization's doctor? Value conflict in psychiatric aero-medical evaluation. *Aviat Space Environ Med*. 1981;52(11 pt 1):704–706.
30. Takla NK, Kottman R, Bailey DA. Combat stress, combat fatigue and psychiatric disability in aircrew. *Aviat Space Environ Med*. 1994;65(9):858–865.
31. APA questions military psychiatry procedures. *Psychiatric News*. 17 April 1987;22:1.
32. Morgan D. Medical ethics and law: Military confidentiality in the armed forces. *J Roy Nav Med Serv*. 1994;80:169–170.
33. Mother fights to keep daughter's records in rape case secret. *Wall Street Journal*. 22 August 1996:1.
34. 1999 amendments to the Manual for Courts-Martial, United States [Executive Order 13140, 6 October 1999]. 64 Federal Register 55115–55123 (1999).
35. Howe EG. Special problems for military psychiatrists. In: Simon RI, ed. *Annual Review of Clinical Psychiatry and the Law*. Washington, DC: American Psychiatric Press Inc; 1991: 304–324.
36. Kallen LH, Grodin DM, Vinet RB. Legal aspects of alcohol abuse in the Navy. *Behav Sci Law*. 1989;7:355–377.
37. US Department of the Army. *Alcohol and Drug Abuse Prevention and Control Program*. Washington, DC: DA; 26 March 1999. Army Regulation 600-85.
38. Howe EG. Ethical aspects of military physicians treating patients with HIV /Part Two: The duty to take initiative. *Mil Med*. 1988;153(2):72–76.
39. Howe EG. Military law and AIDS. In: Gosten LO, Porter L, eds. *International Law and AIDS: International Response, Current Issues, and Future Directions*. Washington, DC: International Health Law Committee, American Bar Association; 1992: 102–106.
40. Howe EG. Military physicians' legal and ethical obligations to third parties when treating servicepersons infected with human immunodeficiency virus. *AIDS Public Policy J*. 1987;2:46–62.
41. Howe EG. Ethical aspects of military physicians treating patients with HIV /Part Three: The duty to protect third parties. *Mil Med*. 1988;153(3):140–144.
42. Secretary of Defense. *Policy on Identification, Surveillance and Administration of Personnel Infected With Human Immunodeficiency Virus (HIV)*. Memorandum, 20 April 1987.
43. Secretary of Defense. *Policy on Identification, Surveillance and Disposition of Military Personnel Affected With Human Immunodeficiency Virus (HIV)*. Memorandum, 4 August 1988.
44. Public Law 101-510. National Defense Authorization Act for Fiscal Year 1991. 5 November 1990.
45. Public Law 102-484. National Defense Authorization Act for Fiscal Year 1993. 23 October 1992.
46. DoD Directive 6490.1. *Mental Health Evaluations of Members of the Armed Forces*. 1 October 1997.
47. US Air Force Regulation 168-4. *Administration of Medical Activities, Section D, Safeguarding and Releasing Medical Information, and Laws Affecting Disclosure*. April 1987;Chapter 12.6:Art 12-35.

48. US Department of the Army. Confidentiality of medical information. In: *Medical Record Administration and Health Care Documentation*. Washington, DC: DA; 3 May 1999. Army Regulation 40-66; Chap 2.
49. NAVMED US Navy Medical Command P-117 Manual of the Medical Department, Chapter 23: *Reports, Forms, and Records, Section III, Release of Information From Records*. 25 November 1980;Art 70-79.
50. Rothberg JM, Rock N, Jones FD. Suicide in US Army personnel, 1981–1982. *Mil Med*. 1984;149:537–541.
51. Rothberg JM, Jones FD. Suicide in the US Army: Epidemiological and periodic aspects. *Suicide Life Threat Beh*. 1987;17(2):119–132.
52. Rothberg JM, Ursano RJ, Holloway H. Suicide in the United States military. *Psychiatry Ann*. 1987;17:545–548.
53. Rothberg JM, Bartone PT, Holloway HC, Marlowe DH. Life and death in the US Army. *JAMA*. 1990;264:2241–2244.
54. McDowell CP, Rothberg JM, Lande RG. Homicide and suicide in the military. In: Jones FD, Sparacino LR, Wilcox VL, Rothberg JM, eds. *Military Psychiatry: Preparing in Peace for War*. In: *Textbook of Military Medicine*. Washington, DC: Office of The Surgeon General, US Department of the Army and Borden Institute; 1994: 91–113.
55. Medical Evaluation Board: C4 AR 40–8. 15 September 1983. (Chapter 7, Medical Evaluation Boards, 7-5.b.(2)).
56. Mitchell JR, Holmes EK. Eating Disorders. Presentation at the Uniformed Services University of the Health Sciences (USUHS). Bethesda, Maryland: 27 September 1995.
57. *High Tech Gays v. Defense Industrial Security Clearance Office*, 668 F Supp 1361 (ND Cal 1987).
58. Howe EG. Ethical problems in treating military patients with human immunodeficiency diseases. *J Contemp Health Law Policy*. 1987;3:111–149.
59. Davis JS. Military policy toward homosexuals: Scientific, historical, and legal perspectives. *Mil Law Rev*. 1991;131:55–108.
60. Jones FD, Koshes RJ. Homosexuality and the military. *Am J Psychiatry*. 1995;153:16–21.
61. Uniform code of Military Justice, Subchapter X, Punitive Articles: Section 925, Article 125, Sodomy.
62. Secretary of Defense. *Policy on Identification, Surveillance and Disposition of Military Personnel Affected With HTLV-III*. Memorandum, 24 October 1985.
63. National Defense Authorization Act for Fiscal Year 1987, PL 99-661, Division A, Title 7, 705c(1986) codified in 10 USC 1074.
64. Maze R. Hill, services debate [adverse actions] after confidential interviews. *Navy Times*. 29 June 1987:3.
65. Howe EG. Ethical aspects of military physicians treating patients with HIV / Part One: The duty to warn. *Mil Med*. 1988;153(1):7–11.
66. Howe EG. Trust between military physicians and servicepersons with HIV: Implications for civilian medicine. *Biolaw*. 1988;2:5101–5112.
67. Auster SL. Confidentiality in military medicine. *Mil Med*. 1985;150(7):341–346.
68. Howe EG. Confidentiality in the military. *Behav Sci Law*. 1989;7:317–337.



## CHAPTER 12: ATTACHMENT

### EVOLUTION OF INFORMED CONSENT

There were three key documents in the evolution of informed consent in military combat contingencies. The first of these was a letter, sent from the Assistant Secretary of Defense for Health Affairs to the Assistant Secretary for Health, Department of Health and Human Services, and dated 30 October 1990.<sup>1</sup>

This is to follow up on discussions of DoD [Department of Defense] and HHS [Department of Health and Human Services] personnel over the past weeks. As you know, the memorandum of understanding between DoD and the Food and Drug Administration [FDA] recognizes “special DoD requirements to meet national defense considerations.” Operation Desert Shield presents such special DoD requirements.

Our contingency planning in Desert Shield has had to take into account endemic diseases in the area and the well-publicized capabilities of the Iraqi military with respect to chemical and biological weapons. For some of these risks, we have determined that the best preventive or therapeutic treatment calls for the use of products now under “investigational new drug” (IND) protocols of the FDA.

These are not exotic new drugs; these drugs have well-established uses (although in contexts somewhat different from our requirements) and are believed by medical personnel in both DoD and FDA to be safe. For example, one product consists of a very commonly used drug packaged in a special intramuscular injector to make it readily useable by soldiers on the battlefield. Another example involves a vaccine long recognized by the Centers for Disease Control [CDC] as the primary preventive treatment available for a particular disease, but the relative infrequency of its use has slowed the accumulation of sufficient immunogenicity data to yet support full licensing of the product. Still another example involves a drug in common use at a particular dosage level, but to preserve alertness of the soldiers, we prefer a lower-dosage tablet, which is not an FDA approved product. FDA personnel have been extremely cooperative and supportive in reviewing our proposed protocols for these products, quickly providing favorable responses to all of our submissions to date.

FDA assistance is also needed on the issue of informed consent. Under the Federal Food, Drug and Cosmetic Act, the general rule is that, regardless of the character of the medical evidence, any use of an IND, whether primarily for investigational purposes or primarily for treatment purposes, must be preceded by obtaining informed consent from the patient. The statute authorizes exceptions, however, when the medical professionals administering the product “deem it not feasible” to obtain informed consent.

Our planning for Desert Shield contingencies has convinced us that another circumstance should be recognized in the FDA regulation in which it would be consistent with the statute and ethically appropriate for medical professionals to “deem it not feasible” to obtain informed consent of the patient—that circumstance being the existence of military combat exigencies, coupled with a determination that the use of the product is in the best interest of the individual. By the term “military combat exigencies,” we mean military combat (actual or threatened) circumstances in which the health of the individual, the safety of other personnel and the accomplishment of the military mission require that a particular treatment be provided to a specified group of military personnel, without regard to what might be any individual’s personal preference for no treatment or for some alternative treatment.

In all peacetime applications, we believe strongly in informed consent and its ethical foundations. In peacetime applications, we readily agree to tell military personnel, as provided in FDA’s regulations, that research is involved, that there may be risks or discomforts, that participation is voluntary and that refusal to participate will involve no penalty. But military combat is different. If a soldier’s life will be endangered by nerve gas, for example, it is not acceptable from a military standpoint to defer to whatever might be the soldier’s personal preference concerning a preventive or therapeutic treatment that might save his life, avoid endangerment of the other personnel in his unit and accomplish the combat mission. Based on unalterable requirements of the military field commander, it is not an option to excuse a non-consenting soldier from the military mission, nor would it be defensible militarily—or ethically—to send the soldier unprotected into danger.

To those familiar with military command requirements, this is, of course, elementary. It is also very solidly established in law through a number of Supreme Court cases establishing that special military exigencies sometimes must supersede normal rights and procedures that apply in the civilian community. Consistent with this, long-standing military regulations state that military members may be required to submit to medical care determined necessary to preserve life, alleviate suffering or protect the health of others.

Such special military authority carries with it special responsibility for the well-being of the military personnel involved. Thus, we propose specific procedural limitations on the “not feasible” waiver of informed consent based on military combat exigencies. We propose that decisions on waiving informed consent be made on a case-by-case basis by the Commissioner, assuring an objective review outside of military channels of all pertinent information and an independent validation of the special circumstances presented. Further, we propose the following specific limitations: (1) That drug-by-drug requests for waiver be accompanied by written justification based on the intended uses and the military circumstances involved; (2) that no satisfactory alternative treatment is available; (3) that available safety and efficacy data support the proposed use of the drug or biologic product; (4) that each such request be approved by the applicable DoD Institutional Review Board; and (5) that the waivers be time-limited.

To recap, we have nothing exotic in the works. We are methodically planning for a range of medical treatment contingencies in Operation Desert Shield corresponding to the predictable medical problems that might arise. Some of these contingencies require the availability of products now under IND protocols. For products that will be in the best interests of the patients, military combat exigencies may justify deeming it not feasible to obtain informed consent. FDA’s regulation should provide the mechanism, subject to appropriate limitations, for DoD to request on a drug-by-drug basis, and the Commissioner to decide, that a waiver be granted in cases in which it is established that military combat exigencies make that necessary.

Your cooperation and assistance in this regard is appreciated.

Thus, at the request of the Department of Defense (DoD), the Food and Drug Administration (FDA) instituted rule 23(d) (the second of the three documents) on 21 December 1990, as a subpart of Section 50.23—Exception from general requirements.<sup>2</sup>

The major stipulations of the rule are:

(d)(1) Under 10 U.S.C. 1107(f) the President may waive the prior consent requirement for the administration of an investigational new drug to a member of the armed forces in connection with the member’s participation in a particular military operation. The statute specifies that only the President may waive informed consent in this connection and the President may grant such a waiver only if the President determines in writing that obtaining consent: is not feasible; is contrary to the best interests of the military member; or is not in the interests of national security. The statute further provides that in making a determination to waive prior informed consent on the ground that it is not feasible or the ground that it is contrary to the best interests of the military members involved, the President shall apply the standards and criteria that are set forth in the relevant FDA regulations for a waiver of the prior informed consent requirements of section 505(i)(4) of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 355(i)(4)). Before such a determination may be made that obtaining informed consent from military personnel prior to the use of an investigational drug (including an antibiotic or biological product) in a specific protocol under an investigational new drug application (IND) sponsored by the Department of Defense (DoD) and limited to specific military personnel involved in a particular military operation is not feasible or is contrary to the best interests of the military members involved the Secretary of Defense must first request such a determination from the President, and certify and document to the President that the following standards and criteria contained in paragraphs (d)(1) through (d)(4) of this section have been met.

(i) The extent and strength of evidence of the safety and effectiveness of the investigational new drug in relation to the medical risk that could be encountered during the military operation supports the drug’s administration under an IND.

(ii) The military operation presents a substantial risk that military personnel may be subject to a

chemical, biological, nuclear, or other exposure likely to produce death or serious or life-threatening injury or illness.

(iii) There is no available satisfactory alternative therapeutic or preventive treatment in relation to the intended use of the investigational new drug.

(iv) Conditioning use of the investigational new drug on the voluntary participation of each member could significantly risk the safety and health of any individual member who would decline its use, the safety of other military personnel, and the accomplishment of the military mission.

(v) A duly constituted institutional review board (IRB) established and operated in accordance with the requirements of paragraphs (d)(2) and (d)(3) of this section, responsible for review of the study, has reviewed and approved the investigational new drug protocol and the administration of the investigational new drug without informed consent. DoD's request is to include the documentation required by Sec. 56.115(a)(2) of this chapter.

(vi) DoD has explained:

(A) The context in which the investigational drug will be administered, e.g., the setting or whether it will be self-administered or it will be administered by a health professional;

(B) The nature of the disease or condition for which the preventive or therapeutic treatment is intended; and

(C) To the extent there are existing data or information available, information on conditions that could alter the effects of the investigational drug.

(vii) DoD's recordkeeping system is capable of tracking and will be used to track the proposed treatment from supplier to the individual recipient.

(viii) Each member involved in the military operation will be given, prior to the administration of the investigational new drug, a specific written information sheet (including information required by 10 U.S.C. 1107(d)) concerning the investigational new drug, the risks and benefits of its use, potential side effects, and other pertinent information about the appropriate use of the product.

(ix) Medical records of members involved in the military operation will accurately document the receipt by members of the notification required by paragraph (d)(1)(viii) of this section.

(x) Medical records of members involved in the military operation will accurately document the receipt by members of any investigational new drugs in accordance with FDA regulations including part 312 of this chapter.

(xi) DoD will provide adequate followup to assess whether there are beneficial or adverse health consequences that result from the use of the investigational product.

(xii) DoD is pursuing drug development, including a time line, and marketing approval with due diligence.

(xiii) FDA has concluded that the investigational new drug protocol may proceed subject to a decision by the President on the informed consent waiver request.

(xiv) DoD will provide training to the appropriate medical personnel and potential recipients on the specific investigational new drug to be administered prior to its use.

(xv) DoD has stated and justified the time period for which the waiver is needed, not to exceed one year, unless separately renewed under these standards and criteria.

(xvi) DoD shall have a continuing obligation to report to the FDA and to the President any changed circumstances relating to these standards and criteria (including the time period referred to in paragraph (d)(1)(xv) of this section) or that otherwise might affect the determination to use an investigational new drug without informed consent.

(xvii) DoD is to provide public notice as soon as practicable and consistent with classification requirements through notice in the Federal Register describing each waiver of informed consent determination, a summary of the most updated scientific information on the products used, and other pertinent information.

(xviii) Use of the investigational drug without informed consent otherwise conforms with applicable law.

(2) The duly constituted institutional review board, described in paragraph (d)(1)(v) of this section, must include at least 3 nonaffiliated members who shall not be employees or officers of the Federal Government (other than for purposes of membership on the IRB) and shall be required to obtain any necessary security clearances. This IRB shall review the proposed IND protocol at a convened meeting at which a majority of the members are present including at least one member whose primary concerns are in nonscientific areas and, if feasible, including a majority of the nonaffiliated members. The information required by Sec. 56.115(a)(2) of this chapter is to be provided to the Secretary of Defense for further review.

(3) The duly constituted institutional review board, described in paragraph (d)(1)(v) of this section, must review and approve:

(i) The required information sheet;

(ii) The adequacy of the plan to disseminate information, including distribution of the information sheet to potential recipients, on the investigational product (e.g., in forms other than written);

(iii) The adequacy of the information and plans for its dissemination to health care providers, including potential side effects, contraindications, potential interactions, and other pertinent considerations; and

(iv) An informed consent form as required by part 50 of this chapter, in those circumstances in which DoD determines that informed consent may be obtained from some or all personnel involved.

(4) DoD is to submit to FDA summaries of institutional review board meetings at which the proposed protocol has been reviewed.

(5) Nothing in these criteria or standards is intended to preempt or limit FDA's and DoD's authority or obligations under applicable statutes and regulations.

In 1999, President Clinton signed Executive Order No. 13139 (the third of the three documents), *Improving Health Protection of Military Personnel Participating in Particular Military Operations*,<sup>3</sup> to address what was seen as an ongoing military threat requiring preventive medical efforts. The text of the order is as follows:

30 September 1999

By the Authority vested in me as President by the Constitution and the laws of the United States of America, including section 1107 of title 10, United States Code, and in order to provide the best health protection to military personnel participating in particular military operations, it is hereby ordered as follows:

Section 1. Policy. Military personnel deployed in particular military operations could potentially be



exposed to a range of chemical, biological, and radiological weapons as well as diseases endemic to an area of operations. It is the policy of the United States Government to provide our military personnel with safe and effective vaccines, antidotes, and treatments that will negate or minimize the effects of these health threats.

Sec. 2. Administration of Investigational New Drugs to Members of the Armed Forces.

(a) The Secretary of Defense (Secretary) shall collect intelligence on potential health threats that might be encountered in an area of operations. The Secretary shall work together with the Secretary of Health and Human Services to ensure appropriate countermeasures are developed. When the Secretary considers an investigational new drug or a drug unapproved for its intended use (investigational drug) to represent the most appropriate countermeasure, it shall be studied through scientifically based research and development protocols to determine whether it is safe and effective for its intended use.

(b) it is the expectation that the United States Government will administer products approved for their intended use by the Food and Drug Administration (FDA).

REFERENCES

1. Mendez E Jr, Assistant Secretary of Defense (Health Affairs). Letter to Mason JO, Assistant Secretary for Health, Department of Health and Human Services, 30 October 1990. 55 *Federal Register* 52814 (1990).
2. US Food and Drug Administration. *Protection of Human Subjects: Guidance for Institutional Review Boards and Clinical Investigators. Information Sheets. 1998 Update*. Washington, DC: US FDA;1999: Appendix B: 21 CFR Part 50. Available at: <http://www.fda.gov/oc/ohrt/irbs/appendixb.html>. Accessed 7 September 2001.
3. Clinton WJ. *Executive Order No. 13139: Improving Health Protection of Military Personnel Participating in Particular Military Operations*. Washington DC: The White House; 30 September 1999. Available at: <http://www.denix.osd.mil/denix/Public/Legislation/EO/note54.html>. Accessed 7 September 2001.



---

**MILITARY MEDICAL ETHICS**  
**Volume 2**

---



The Coat of Arms  
1818  
Medical Department of the Army

A 1976 etching by Vassil Ekimov of an  
original color print that appeared in  
*The Military Surgeon*, Vol XLI, No 2, 1917



---

The first line of medical defense in wartime is the combat medic. Although in ancient times medics carried the caduceus into battle to signify the neutral, humanitarian nature of their tasks, they have never been immune to the perils of war. They have made the highest sacrifices to save the lives of others, and their dedication to the wounded soldier is the foundation of military medical care.

---

# Textbooks of Military Medicine

Published by the

*Office of The Surgeon General  
Department of the Army, United States of America*

Editor in Chief and Director  
Dave E. Lounsbury, MD, FACP  
Colonel, MC, US Army  
*Borden Institute  
Assistant Professor of Medicine  
F. Edward Hébert School of Medicine  
Uniformed Services University of the Health Sciences*

Military Medical Editor  
Ronald F. Bellamy, MD  
Colonel, US Army, Retired  
*Borden Institute  
Associate Professor of Military Medicine  
Associate Professor of Surgery  
F. Edward Hébert School of Medicine  
Uniformed Services University of the Health Sciences*

**T**he Borden Institute seeks to collect, publish, and promote all aspects of the unique body of scholarship that constitutes military medicine.

The *Textbooks of Military Medicine* series was conceived in 1987 by then Colonel Russ Zajtchuk and made a reality by Donald P. Jenkins, PhD. A mission of the Borden Institute, the TMM series is published under the aegis of The Surgeon General of the US Army. The Borden Institute draws on Army, Navy, Air Force, Public Health Service, and civilian resources to develop these volumes.

#### **Published Textbooks**

Medical Consequences of Nuclear Warfare (1989)  
Conventional Warfare: Ballistic, Blast, and Burn Injuries (1991)  
Occupational Health: The Soldier and the Industrial Base (1993)  
Military Dermatology (1994)  
Military Psychiatry: Preparing in Peace for War (1994)  
Anesthesia and Perioperative Care of the Combat Casualty (1995)  
War Psychiatry (1995)  
Medical Aspects of Chemical and Biological Warfare (1997)  
Rehabilitation of the Injured Soldier, Volume 1 (1998)  
Rehabilitation of the Injured Soldier, Volume 2 (1999)  
Medical Aspects of Harsh Environments, Volume 1 (2002)  
Medical Aspects of Harsh Environments, Volume 2 (2002)  
Ophthalmic Care of the Combat Casualty (2003)  
Military Preventive Medicine, Volume 1 (2003)  
Military Medical Ethics, Volume 1 (2003)  
Military Medical Ethics, Volume 2 (2003)



J.O. Chapin

*The Doctor in War*

1944

The fifth of seven images from the series *The Seven Ages of a Physician*. The series depicts the life progression of a doctor from birth, first encounter with suffering, through medical training, professional experience, service to country during war, and research to further knowledge. The heritage of military medicine is readily apparent in the depiction of casualties from various wars. As he treats this casualty he draws upon the experience of those physicians who have treated the casualties of war in the past. Likewise, his knowledge, passed to the next generation, continues this tradition of caring that is military medicine.

Art: Courtesy of Novartis Pharmaceuticals.



# MILITARY MEDICAL ETHICS

## VOLUME 2

---

*Specialty Editors*

THOMAS E. BEAM, MD  
*Formerly Director, Borden Institute*  
*Formerly, Medical Ethics Consultant to The Surgeon General, United States Army*

LINETTE R. SPARACINO, MA  
*Borden Institute*

*Section Editor*

MEDICAL ETHICS IN THE MILITARY  
THOMAS E. BEAM, MD  
*Formerly Director, Borden Institute*  
*Formerly, Medical Ethics Consultant to The Surgeon General, United States Army*

---

*Office of The Surgeon General*  
*United States Army*  
*Falls Church, Virginia*

*Borden Institute*  
*Walter Reed Army Medical Center*  
*Washington, DC*

*Uniformed Services University of the Health Sciences*  
*Bethesda, Maryland*

2003

**Editorial Staff:** Lorraine B. Davis  
Senior Production Manager  
Linette R. Sparacino  
Volume Editor

Douglas Wise  
Senior Layout Editor

---

This volume was prepared for military medical educational use. The focus of the information is to foster discussion that may form the basis of doctrine and policy. The opinions or assertions contained herein are the private views of the authors and are not to be construed as official or as reflecting the views of the Department of the Army or the Department of Defense.

**Dosage Selection:**

The authors and publisher have made every effort to ensure the accuracy of dosages cited herein. However, it is the responsibility of every practitioner to consult appropriate information sources to ascertain correct dosages for each clinical situation, especially for new or unfamiliar drugs and procedures. The authors, editors, publisher, and the Department of Defense cannot be held responsible for any errors found in this book.

**Use of Trade or Brand Names:**

Use of trade or brand names in this publication is for illustrative purposes only and does not imply endorsement by the Department of Defense.

**Neutral Language:**

Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men.

---

CERTAIN PARTS OF THIS PUBLICATION PERTAIN TO COPYRIGHT RESTRICTIONS.  
ALL RIGHTS RESERVED.

NO COPYRIGHTED PARTS OF THIS PUBLICATION MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL (INCLUDING PHOTOCOPY, RECORDING, OR ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM), WITHOUT PERMISSION IN WRITING FROM THE PUBLISHER OR COPYRIGHT OWNER.

Published by the Office of The Surgeon General at TMM Publications  
Borden Institute  
Walter Reed Army Medical Center  
Washington, DC 20307-5001

**Library of Congress Cataloging-in-Publication Data**

Military medical ethics / specialty editors, Thomas E. Beam, Linette R. Sparacino ; section editors, Edmund D. Pellegrino, Anthony E. Hartle, Edmund G. Howe.  
p. ; cm. -- (Textbooks of military medicine)  
Includes bibliographical references and index.  
1. Medicine, Military--Moral and ethical aspects. 2. Military ethics. 3. Medical ethics. I. Beam, Thomas E. II. Sparacino, Linette R. III. Series  
[DNLM: 1. Military Medicine--ethics. 2. Military Personnel--psychology. 3. Physicians's Role. 4. War. UH 390 M6437 2003]  
RC971.M638 2003  
174'.2--dc22

2003057728

PRINTED IN THE UNITED STATES OF AMERICA

10, 09, 08, 07, 06, 05, 04, 03

5 4 3 2 1

# Contents

Contributors	xi
Foreword by The Surgeon General	xiii
Preface	xv
<b>Section IV: Medical Ethics in the Military</b>	<b>367</b>
13. Medical Ethics on the Battlefield: The Crucible of Military Medical Ethics Thomas E. Beam, MD The battlefield is perhaps the most difficult of all environments in which to practice medicine. Pressures from the threat of enemy attack as well as unique issues, such as returning soldier/patients to duty, triage or even euthanasia on the battlefield, and physician participation in interrogation of prisoners of war, require agonizing choices.	369
14. Nazi Medical Ethics: Ordinary Doctors? Robert N. Proctor, PhD Medicine under the Nazi regime flourished and physicians participated, not as pawns but as pioneers, in the horrors of genocide and unethical experimentation. The reasons for this are varied and have many factors, but do not lessen the terror of physicians killing and torturing patients.	403
15. Nazi Hypothermia Research: Should the Data Be Used? Robert S. Pozos, PhD One of the better known examples of unethical research under the Nazi regime is that of the hypothermia experiments on prisoners. A recurring question remains as to whether or not the data represent good science and if so, whether or not to use these data.	437
16. Japanese Biomedical Experimentation During the World War II Era Sheldon H. Harris, PhD The Japanese experiments in China during World War II are perhaps less well known than those of the Nazi physicians, but equal them in scope and in harm to their victims. However, there was no Japanese equivalent to the Nuremberg physician's trial. This raises obvious questions with very interesting implications.	463
17. The Cold War and Beyond: Covert and Deceptive American Medical Experimentation by Susan E. Lederer, PhD Examination of the history of experimentation in America before, during, and after World War II provides an opportunity to review unethical research in a democratic society so that one can learn and possibly prevent their ever occurring again.	507
18. Medical Ethics in Military Biomedical Research Michael E. Frisina, MA The very concept of biomedical research in the military raises ethical questions. However, it is possible to obtain good data while adhering to principles of research ethics.	533
19. The Human Volunteer in Military Biomedical Research Paul J. Amoroso, MD and Lynn L. Wenger, MSBA Human subject research within the military raises unique issues, including concerns for coercion, adequacy of informed consent, and use of epidemiologic data obtained for different purposes. There are more stringent regulations in place within the military than in the civilian sector to safeguard against potential violations of human subject research ethics.	563
20. Nursing Ethics and the Military Janet R. Southby, RN, DNSc Ethics in nursing has a rich history, one which the military has helped develop. Ethics as viewed by nurses is complementary to that of physicians.	661

21.	Religious and Cultural Considerations in Military Healthcare	687
	David M. DeDonato, MDiv, MA, BCC and Rick D. Mathis, JD, MDiv, MA	
	Religion and cultural practices are extremely important to medicine in the military due to frequent opportunities for interaction with other cultures. The study of views of wellness and illness can assist health care professionals address conflicts arising from religious and cultural differences.	
22.	Societal Influences and the Ethics of Military Healthcare	719
	Jay Stanley, PhD	
	In a civilian controlled military, societal influences are a major factor in military medicine and its ethics.	
23.	Military Medicine in War: The Geneva Conventions Today	739
	Lewis C. Vollmar, Jr, MD, MBA, MA (Law)	
	The Geneva Conventions, as they pertain to medical personnel and their patients, provide specific reciprocal privileges and obligations. They exist to attempt to ensure safety and an appropriate level of care for those sick, wounded, or captured.	
24.	Military Medicine in Humanitarian Missions	773
	Joan T. Zajтчuk, MD, Spec in HSA	
	Examining the history of military medicine in humanitarian missions provides an understanding of its changing role. Lessons learned from past efforts can help develop effective programs in the future.	
25.	Military Humanitarian Assistance: The Pitfalls and Promise of Good Intentions	805
	Elspeth Cameron Ritchie, MD and Robert L. Mott, MD, MPH	
	Peacetime engagement projects and conflict-related contingency operations require different methods of planning and execution. Mistakes made in past missions highlight some of the problems associated with well-intentioned efforts. There are also unique stresses experienced by healthcare professionals working in these environments.	
26.	A Look Toward the Future	831
	Thomas E. Beam, MD and Edmund G. Howe, MD, JD	
	Technological advances currently being considered provide an opportunity to develop a method for ethical analysis of those in the future. Compensatory justice may require earlier introduction of some of these lifesaving technologies within the military.	
27.	A Proposed Ethic for Military Medicine	851
	Thomas E. Beam, MD and Edmund G. Howe, MD, JD	
	A possible military medical ethic could include concepts of acting primarily as a physician in almost all circumstances, voluntarily limiting the exercise of power, and advancing the concept of compensatory justice. Exceptions to these general precepts need careful analysis and justification.	
	Afterword	867
	Abbreviations and Acronyms	xix
	Index	xxiii



# Contributors

**PAUL J. AMOROSO, MD, MPH**

Colonel, Medical Corps, United States Army; Research Epidemiologist and Project Director, Total Army Injury and Health Outcomes Database Project, United States Army Research Institute of Environmental Medicine, MCMR-EMP, 42 Kansas Street, Natick, Massachusetts 01760-5007

**ANTHONY C. AREND, PhD**

Professor of Government and Adjunct Professor of Law, Georgetown University, 4000 Reservoir Road, Washington, DC 20056

**THOMAS E. BEAM, MD**

Colonel (Retired), Medical Corps, United States Army

**BRIAN S. CARTER, MD, FAAP**

Associate Professor, Department of Pediatrics, Vanderbilt University, A-0126 Medical Center North, Nashville, Tennessee 37232-23707

**DAVID M. DeDONATO, MDiv, MA, BCC (APC)**

Director of Pastoral Care, Lexington Medical Center, West Columbia, South Carolina 29169

**NICHOLAS G. FOTION, PhD**

Professor, Department of Philosophy, Emory University, Atlanta, Georgia 30322

**MICHAEL E. FRISINA, MA**

Administrative Director, Surgical Services, Tuomey Healthcare System, 129 North Washington Street, Sumter, South Carolina 29150

**SHELDON H. HARRIS, PhD**

Professor Emeritus of History, California State University, Northridge, California (Dr. Harris died August 31, 2002)

**ANTHONY E. HARTLE, PhD**

Colonel, Corps of Professors, United States Military Academy, United States Army; Professor of Philosophy, Department of English, United States Military Academy, West Point, New York 10996-1791

**JOHN COLLINS HARVEY, MD, PhD**

Professor of Medicine Emeritus, Georgetown University; Senior Research Scholar, Kennedy Institute of Ethics, Georgetown University; and Senior Research Scholar, Center for Clinical Bioethics, Georgetown University Medical Center, 4000 Reservoir Road, NW, #D-238, Washington, DC 20057

**EDMUND G. HOWE, MD, JD**

Director, Programs in Ethics, Professor of Psychiatry, and Associate Professor of Medicine, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, Maryland 20814; and Chair, Committee of Department of Defense Ethics Consultants to the Surgeons General

**FARIS R. KIRKLAND, PhD**

Lieutenant Colonel (Retired), Field Artillery, United States Army (Dr. Kirkland died February 22, 2000)

**SUSAN E. LEDERER, PhD**

Assistant Professor, Section of the History of Medicine, Yale University School of Medicine, Yale University, 333 Cedar Street, New Haven, Connecticut 06520-8015

**BARRY S. LEVY, MD, MPH**

Adjunct Professor of Community Health, Tufts University School of Medicine, 20 North Main Street, #200, Post Office Box 1230, Sherborn, Massachusetts 01770

**WILLIAM MADDEN, MD**

Associate Professor of Clinical Pediatrics, Department of Pediatrics and Steele Memorial Children's Research Center, College of Medicine, University of Arizona, 1501 North Campbell Avenue, Tucson, Arizona 85724

**RICK D. MATHIS, JD, MDiv, MA**

Lieutenant Colonel, Chaplain Corps, United States Army; Staff Chaplain, 18th Military Police Brigade, Mannheim, Germany; HHC 18th MP Bde, Unit 29708, APO AE 09028

**ROBERT L. MOTT, MD, MPH**

Major, Medical Corps, United States Army; Deputy Director, General Preventive Medicine Residency, United States Army Center for Health Promotion and Preventive Medicine, Walter Reed Army Institute of Research, Building 503, Silver Spring, Maryland 20910-7500

**WILLIAM V. O'BRIEN, PhD**

Professor of Government Emeritus (Retired), Georgetown University, 4000 Reservoir Road, Washington, DC 20056

**EDMUND D. PELLEGRINO, MD, MACP**

John Carroll Professor of Medicine and Medical Ethics, Georgetown University; Senior Research Scholar, Kennedy Institute of Ethics, Georgetown University; and Senior Research Scholar, Center for Clinical Bioethics, Georgetown University Medical Center, 4000 Reservoir Road, NW, #D-238, Washington, DC 20057

**ROBERT S. POZOS, PhD**

Professor of Biology, San Diego State University, 5500 Campanile Drive, San Diego, California 92182-4616

**ROBERT N. PROCTOR, PhD**

Helen and Walter Ferree Professor of the History of Science and Co-Director, Science, Medicine, and Technology in Culture, Pennsylvania State University, University Park, Pennsylvania 16802

**DOMINIC RASCONA, MD, FACP, FCCP**

Commander, Medical Corps, United States Navy; Assistant Director, Critical Care, Naval Medical Center, Portsmouth, Virginia

**ELSPETH CAMERON RITCHIE, MD**

Lieutenant Colonel, Medical Corps, United States Army; Program Director, Mental Health Policy and Women's Health Issues, Office of the Secretary of Defense, Health Affairs, Skyline 5, Suite 601, 5111 Leesburg Pike, Falls Church, Virginia 22041-3206

**VICTOR W. SIDEL, MD**

Distinguished University Professor of Social Medicine, Montefiore Medical Center, Albert Einstein College of Medicine, 111 East 210th Street, Bronx, New York 10467; Adjunct Professor of Public Health, Weill Medical College of Cornell University, New York

**JANET R. SOUTHBY, RN, DNSc**

Colonel (Retired), Nurse Corps, United States Army; Associate Director, Interagency Institute for Federal Health Care Executives, School of Public Health and Health Services, The George Washington University Medical Center, Washington, DC

**JAY STANLEY, PhD**

Professor Emeritus of Sociology and Director, Symposium for Peace, War and Military Studies, Department of Sociology and Anthropology, Towson University, Towson, Maryland 21204-7097

**DANIEL P. SULMASY, OFM, MD, PhD**

Professor of Medicine and Director of the Bioethics Institute, New York Medical College, Valhalla, New York; and Sisters of Charity Chair in Ethics, John J. Conley Department of Ethics, Saint Vincent's Hospital and Medical Center, 153 West 11th Street, New York, New York 10011

**DAVID C. THOMASMA, PhD**

Professor and English Chair of Medical Ethics, Neiswanger Institute of Bioethics and Health Policy, Stritch School of Medicine, Loyola University Chicago, 2160 South First Avenue, Maywood, Illinois 60153 (Dr. Thomasma died April 25, 2002)

**SANDRA L. VISSER, PhD**

Associate Professor, Department of Philosophy, Valparaiso University, Valparaiso, Indiana 46383

**LEWIS C. VOLLMAR, JR, MD, MBA, MA (Law)**

Colonel (Retired), Medical Corps, United States Army Reserve; Dermatology Section Chief, St. Anthony's Hospital, 10004 Kennerly Road, Suite 300, St. Louis, Missouri 63128-2175

**LYNN L. WENGER, MBA**

Formerly, Human Research Support Program Coordinator, The Soldiers Systems Command, Natick, Massachusetts

**JOAN T. ZAJTCHUK, MD, SPEC IN HSA**

Colonel (Retired), Medical Corps, United States Army; Professor of Otolaryngology and Bronchoesophagology, Center for Advanced Technology and International Health, Rush-Presbyterian-St. Luke's Medical Center, 600 South Paulina, Suite 524, Chicago, Illinois 60612-3832

# Foreword

These two volumes of the *Textbook of Military Medicine* address medical ethics within a military context, a heretofore essentially unexplored field. Military medical care is practiced across a wide spectrum of settings, ranging from garrison medicine, through deployments for Operations Other Than War (OOTW), and extending to massive deployments of personnel and materiel in a large-scale conventional war. Within a peacetime garrison setting, military medical ethics has many similarities to civilian medical ethics and usually uses the same decision-making processes. It is similar in that the patient–physician relationship is generally the same, as are the goals of therapy. Patient autonomy takes priority in clinical decisions. However, the very nature of the military mission, especially when it involves deployment or combat, precludes military medical ethics from being identical to civilian medical ethics. Within military medicine, there is a significant dichotomy between medicine’s healing and the military’s injuring. Conflicts can arise between duties to the patient and to the command structure. The battlefield introduces totally unique stressors and criteria for decision making. These differences demonstrate the need for these two volumes and their exploration will be its primary emphasis.

The study and discussion of military medical ethics is inherently controversial and troubling. Those who serve in the armed services understand the complexities and problems that the military mission can introduce to the delivery of effective medical healthcare. For instance, rarely does the issue of national security play a role in the day-to-day medical decisions in a civilian setting. The military, however, as the sentry and defender of the nation, is tasked with maintaining security. Survival of the nation can be a powerful driving force behind medical decisions, whether they are correct, just, or legal. One need look no further in our own past than the recently revealed radiation experiments from the Cold War era to understand this. Certainly the lessons to be learned from the perversion of medicine in Germany and Japan, both before and during World War II, are ones to be carefully examined and never forgotten. We constantly strive to remember those lessons, to learn from them, and to attempt to ensure that we do not repeat the travesties of the past. It is all too easy to look at others’ sins and be smug in our own virtue. While controversy is seldom comfortable, it should always be instructive. An excellent organization is willing to publicly examine and discuss its mistakes and to learn from them. *Military Medical Ethics* is offered in that spirit. These volumes may offend. They may stir emotions. They are intended to illuminate. If we cannot bear to look at past mistakes, particularly when they are ours, we cannot learn from them and therefore we cannot prevent them in the future.

I strongly encourage all military medical officers, commanders, and others involved in ethical decision making in medicine study this two volumes. Examine your responses and analyze your decision-making processes. Those who are willing to give the supreme sacrifice in the service of their country are entitled to nothing less than the best ethical decisions made in providing superior medical care to them and their families.

Lieutenant General James B. Peake  
The Surgeon General  
US Army

Washington, DC  
April 2003





# Preface

Volume I has discussed the separate fields of medical ethics and military ethics, as well as the synthesis of the two fields in the discussion of profession of the military physician. Volume II continues this discussion by noting that medical ethics in the military is more than just the mere combining of the ethics of the two professions in the persona of the military physician. The underlying tension generated by mixed agency will permeate the chapters in this volume. This tension emerges most clearly when caring for casualties of combat. As the chapter on battlefield medical ethics so aptly describes, the pace and chaos of the battlefield put physicians in situations of making immediate life and death decisions. Furthermore, the practice of medicine in this ferocious environment requires professional military medical training. The lack of resources—whether time, personnel, equipment, supplies, or safety—thrusts the military physician into situations so hostile that his skills, morality, and ethics can all be challenged. This environment is one that his civilian colleagues are likely to never experience, and thus are likely to never fully understand or appreciate. But military physicians know, even if they have not yet cared for combat casualties, that doing so is the apex of their careers—what they have prepared to do, and what they are willing to sacrifice even their own lives in order to do. Thus it is not an exaggeration to say that the battlefield is the crucible of military medical ethics.

Medicine in the service of the State, however, can be seductive and corruptive. We offer four chapters detailing several examples in which unethical decisions were made under the pressure of national security issues. The first reviews the already well-documented crimes against humanity committed by the Nazi regime and punished by the Nuremberg Tribunal. The Nazi doctors were not forced into evil; many freely chose it. The next two chapters (one on the hypothermia experiments at Dachau and the other on the biomedical research programs of the Japanese during the same era) demonstrate the widespread corruption of medical ethics when medicine in the service of the state went without challenge. Some of these transgressions were prosecuted; others were not. The fourth chapter in this discussion concerns American covert and deceptive medical research during the Cold War era. Some may blanch at the inclusion of a chapter on American misdeeds in the same section that chronicles the horrors of the German and Japanese death camps. While American research efforts were not as *malevolent* or *extensive* as those of other countries, they nonetheless violated the ethic underlying the patient–physician relationship—“firstly, do no harm.”

The four chapters that comprise the discussion of medicine in the service of the state are followed by two chapters that examine the issues of medical research during that era, and bring it forward through the history of military medical research. Although the chapters have a certain historical flavor, inasmuch as they acknowledge the misdeeds of the past, they also describe how these research programs evolved. In their evolution we see a turn away from pursuing whatever was necessary to protect the country, even if it was at the expense of individuals, toward ensuring ethical research. Thus, the theme for these two chapters is very straightforward: Medical research in the military is carefully controlled to protect the rights of individuals, while ethically pursuing the knowledge necessary to protect the health of service members and thus to support the military mission. The second of the two chapters has, as attachments, several of the most important documents pertaining to the ethical conduct of research, including *The Belmont Report*.

Medicine in the military is practiced in a variety of contexts, with a variety of patients, all of which necessitates an understanding of the ethics of patient healthcare in a diverse world. Just as there are a variety of patients (including family members and veterans), there are also a variety of healthcare professionals who comprise the healthcare team. Nursing, in particular, addresses the individuality of patients and functions as a bridge between the needs of the patient and the services of the physician. Chaplains are another key component in the healthcare team, for they bring with them an understanding of the spiritual needs of patients as they confront what can be life-altering events or illnesses. Their ability to understand social and cultural differences of patients is particularly valuable in an increasingly diverse military population that also deploys to other cultures to offer assistance.

Medicine in the military is influenced by the society—its ethics, customs, and laws—that it seeks to protect. This societal influence is most apparent as it relates to medicine in the military and the care of its beneficiaries. Military medicine in combat is governed by the Geneva Conventions. These specify the

rights and responsibilities of healthcare professionals and injured or captured combatants.

As the mission of the military continues to evolve, so, too, does the role of military medicine, especially in operations other than war. We present two chapters dealing with the most prevalent forms of military medical assistance to other nations. These missions can, at the same time, be both inspiring and frustrating to those tasked to carry them out. Understanding the ethic of military medicine, especially in these austere environments, is of benefit to all participants to help them navigate through the many obstacles that can be found in unfamiliar surroundings. Not only will military missions evolve; military medicine will evolve as well with the development of new technologies for treating military personnel. Without an adequate appreciation of military medical ethics, some may find these new technologies so tantalizing that the basics (as they have been presented in these volumes) of medical ethics—autonomy, beneficence, nonmaleficence, and justice—may be set aside.

What, then, is the military physician? What have we concluded about this professional in this exposition of military medical ethics? We can state it simply: We believe that the military physician is first and foremost a physician, and secondarily an officer. Yes, the physician is a uniformed service member and is subject to the same rules and regulations, as well as loss of autonomy, as other service members. But most of the time military physicians primarily serve as physicians caring for individual service members. These service members understand that sometimes physicians will have to put the needs of the individual aside for the needs of the mission, but troops must also remain confident that their doctors will do that only when absolutely necessary.

The editors intend these volumes to challenge the reader to examine his profession—both medicine and military—and begin to critically evaluate the position he will take on ethically challenging issues. There is a rich history of military medicine that includes examples of both good and evil. Our intention is for today's military physician to learn from past errors, to live up to the excellent models of the past, and to grow into the future. Military medicine is a moral profession, but we must be vigilant to guard against challenges that threaten this.

Colonel (Retired) Thomas E. Beam  
Formerly Director, The Borden Institute  
US Army

Washington, DC  
April 2003

---

The current medical system to support the U.S. Army at war is a continuum from the forward line of troops through the continental United States; it serves as a primary source of trained replacements during the early stages of a major conflict. The system is designed to optimize the return to duty of the maximum number of trained combat soldiers at the lowest possible level. Far-forward stabilization helps to maintain the physiology of injured soldiers who are unlikely to return to duty and allows for their rapid evacuation from the battlefield without needless sacrifice of life or function.

---





# MILITARY MEDICAL ETHICS

## VOLUME 2

### SECTION IV: MEDICAL ETHICS IN THE MILITARY

#### *Section Editor:*

THOMAS E. BEAM, MD

*Formerly Director, Borden Institute*

*Formerly, Medical Ethics Consultant to The Surgeon General, United States Army*



Robert Benney

*Shock Tent*

circa World War II

Art: Courtesy of Army Art Collection, US Army Center of Military History, Washington, DC.



# Chapter 13

## MEDICAL ETHICS ON THE BATTLEFIELD: THE CRUCIBLE OF MILITARY MEDICAL ETHICS

THOMAS E. BEAM, MD<sup>\*</sup>

---

### INTRODUCTION

#### RETURN TO DUTY CONSIDERATIONS IN A THEATER OF OPERATIONS

Getting Minimally Wounded Soldiers Back to Duty

Combat Stress Disorder

“Preserve the Fighting Strength”

Informed Consent

Beneficence for the Soldier in Combat

Enforced Treatment for Individual Soldiers

#### BATTLEFIELD TRIAGE

The Concept of Triage

Establishing and Maintaining Prioritization of Treatment

Models of Triage

Examining the Extreme Conditions Model

#### EUTHANASIA ON THE BATTLEFIELD

Understanding the Dynamics of the Battlefield: The Swann Scenario

A Brief History of Battlefield Euthanasia

A Civilian Example From a “Battlefield” Setting

Available Courses of Action: The Swann Scenario

Ethical Analysis of Options

#### PARTICIPATION IN INTERROGATION OF PRISONERS OF WAR

Restrictions Imposed by the Geneva Conventions

“Moral Distancing”

Developing and Participating in Torture

Battlefield Cases of Physician Participation in Torture

### CONCLUSION

<sup>\*</sup>Colonel (Retired), Medical Corps, United States Army; formerly, Director, Borden Institute, Walter Reed Army Medical Center, Washington, DC 20307-5001 and Medical Ethics Consultant to The Surgeon General, United States Army; formerly, Director, Operating Room, 28th Combat Support Hospital (deployed to Saudi Arabia and Iraq, Persian Gulf War)



Robert Benney

*The Battle of the Caves*

Anzio, 1944

The painting depicts battlefield medicine in the Mediterranean theater in World War II. These soldiers, with their wounded and medical assets, have taken a position in a cave. The medical corpsman is doing the best he can for his patient in the chaos and close quarters of the battle.

Art: Courtesy of Army Art Collection, US Army Center of Military History, Washington, DC. Available at: <http://www.armymedicine.army.mil/history/art/mto.htm>.



## INTRODUCTION

All members of the healthcare team, whether civilian or military, confront ethical challenges on a daily basis and feel some of those tensions as they go about their jobs. During peacetime, military health professionals see the same issues as do their civilian colleagues, although day-to-day military medicine presents some additional ethical challenges due to the issues raised by mixed agency, which is the problem of divided loyalties discussed previously by Howe in Chapter 12, *Mixed Agency in Military Medicine: Ethical Roles in Conflict*. However, it is on the battlefield that the greatest ethical dilemmas arise. The mixed agency issues are accentuated on the battlefield because the physician has a legal obligation to place the interests of society (and the military mission of protecting and defending that society) above those of the soldier. There are simply no comparable situations in the civilian sector, despite frequent comparisons to inner-city emergency rooms on “any Saturday night,” because the weaponry, circumstances, and participants are so different in combat.

This chapter will examine the elevated stress of the battlefield, the moral dilemmas encountered there, and the unique situations in which military medical personnel must function. The military physician must consider return-to-duty issues that, perhaps more than any other, exemplify the essence of mixed agency. Battlefield triage will be examined and models will be presented. The especially difficult issue of battlefield euthanasia will be extensively explored. The chapter will also visit the participation of physicians in the interrogation of prisoners of war. As is evident from these topics, the battlefield confronts the medical professional with a variety of profound ethical challenges.

Indeed, it is impossible to imagine a more challenging environment in which to practice medicine than on the battlefield. It is the antithesis of the ideal medical setting. It is violent. It is noisy. It is chaotic. It is in constant flux. And it is unpredictable. Lack of creature comforts is the least of the problems faced. Noise levels prevent normal aspects of patient care (Figure 13-1). Rapid movement, often on little or no advance notice, requires treatment facilities to be set up and taken down very quickly. Patients can arrive before preparations are completed. Medical personnel, as well as patients, suffer from the fatigue and filth (Figure 13-2).

There are also unique moral dilemmas involved in decisions on the battlefield, decisions that may have to be made in the midst of a violent and cha-

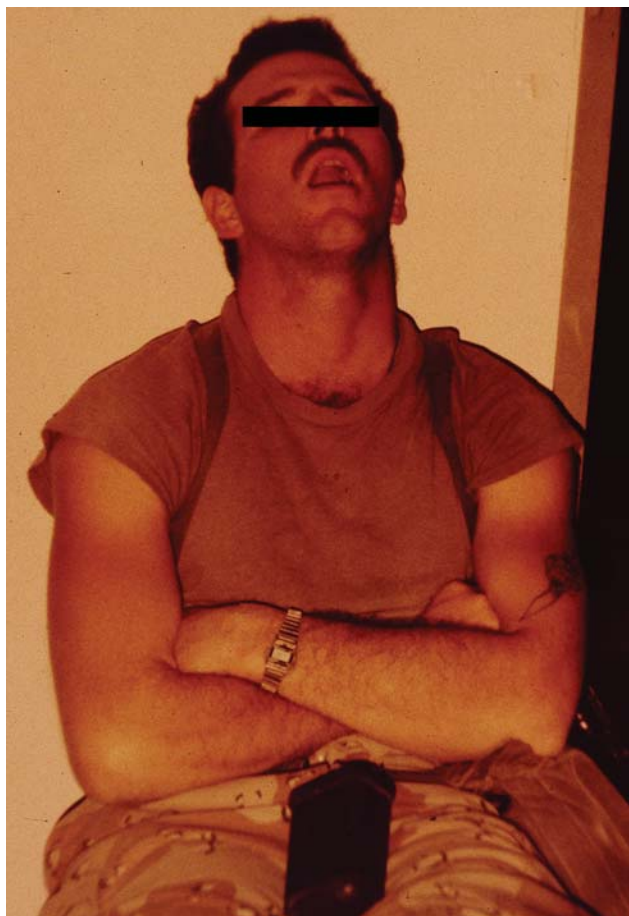
otic scene. Added to the unpredictable nature of the battlefield will be the predictable constraints necessitated by the logistics of combat. There will be very limited medical resources on the battlefield. For the modern battlefield, medical personnel will carry their initial supplies, including medications, with them. There will be uncertainty of resupply.<sup>1</sup> In these circumstances, medical personnel will be unable to expend large amounts of IV fluid or blood (or potentially even antibiotics or pain medications) on any single casualty.

The plan for rapid evacuation of casualties from the battlefield to hospitals to the rear also may be difficult to implement.<sup>2</sup> Successful evacuation depends on air superiority, numbers of wounded not exceeding capability to transport them, and a generally favorable flow of battle. If the battle is going against US forces, it is less likely that air superiority will have been achieved, that air assets will be employed to transport wounded, or that these air assets will be able to safely get to the forward facilities to provide the evacuation spaces. In this fluid battlefield, it is not at all unlikely that the enemy will overrun some forward hospitals and capture medical personnel.

Although captured medical personnel are afforded certain rights by the Geneva Conventions,<sup>3</sup> (including the opportunity to continue to treat their wounded prisoners of war, relief from other duties in a prisoner of war [POW] camp, and their rapid repatriation as soon as their medical duties are reasonably completed), it is not at all certain that all



**Fig. 13-1.** This mass casualty situation occurred following a helicopter crash during Operation Desert Shield in 1990. It shows the chaos and resulting noise that often accompany this kind of event.



**Fig. 13-2.** This paraprofessional member of the 28th Combat Support Hospital during combat operations in Iraq (Operation Desert Storm, 1991) shows the effects of fatigue and lack of time for personal hygiene. Events leading to his exhaustion involved protracted convoy operations into Iraq and immediate establishment of the hospital, which was followed by continuous treatment of war casualties for more than 72 hours.

enemies will respect these accords. This, therefore, places the medical personnel in the position of not knowing how they would be treated if captured. This uncertainty might also affect how they react

to an enemy encounter. This is particularly acute in the morass of misinformation typically associated with armed conflict. Often the atrocities attributed to the enemy are exaggerated and embellished. Nonetheless, there is occasionally accurate cause for concern, because noncombatants have been killed or otherwise mistreated and not afforded their rights under the Geneva Conventions.

Triage issues involving priorities in treating US troops, allies, local civilian population, and enemy troops further heighten the difficulties experienced. In addition, line commanders may request the use of medical evacuation assets to remove troops killed in action (KIA) from the battlefield. This will obviously create difficulty for medical personnel attempting to clear the area of wounded. Moral dilemmas also arise in considering euthanasia on the battlefield, participation in interrogation of prisoners of war, and utilization of medical knowledge to achieve a political end or to extract information from an enemy soldier. Issues also arise when one is in command of a unit,<sup>4</sup> which heighten the issues of mixed agency, as addressed by Howe in Chapter 12. Facing all of these issues at the same time may prove too great a stress for medical personnel. Decisions that are made while experiencing this stress and facing these uncertainties may not be the ones made if one had the time to carefully weigh and evaluate all factors. It is imperative, therefore, for all military healthcare professionals to consider these issues prior to actually being in the "heat of battle." Pulling a few rotations through a Saturday night emergency room is in no way comparable to the battlefield, nor an adequate substitute for training purposes.

First, and foremost, is the issue of the soldier as a component of a team, rather than as an individual, and therefore the question of returning him to duty. In most civilian medical contexts, the patient's job responsibilities are not usually the determining factor in recommending medical treatment. In the military, particularly on the battlefield, the soldier-patient's team responsibilities may, however, assume primary importance.

### RETURN TO DUTY CONSIDERATIONS IN A THEATER OF OPERATIONS

A tension that is faced by nearly all deployed physicians is the issue of returning a minimally injured patient, or one suffering from combat stress reaction, to combat. This includes the issue of conflicting duties to the individual patient as well as to the line commander (mixed agency), which have been discussed in detail by Howe in Chapter 12.

There are, however, other very difficult issues of balancing the medical indications for treating the injuries or combat stress reaction at the first available medical treatment facility in an attempt to maximize the good done for the individual patient and his or her organization, while also recognizing that some patients may desire evacuation.

### Getting Minimally Wounded Soldiers Back to Duty

This concern can occur in the sick or minimally wounded soldier who presents for care. The physician may experience internal conflict between a desire to protect the patient from additional trauma and the duty to support the needs of the command. This is the classic mixed agency issue. The line commander may need to have this particular soldier, with his specific skills, back to continue to fight. In addition, allowing him to avoid combat is antithetical to the concept of justice—treating similar persons in a similar manner. If one soldier is allowed to leave the theater, this will force another soldier to assume his responsibilities, thereby causing an inequity of duties. It is also likely that the remaining soldiers will be exposed to greater risk due to the loss of a member of the unit, and the likelihood of any one of the remaining soldiers becoming a casualty is greater.

A greater harm may occur if it becomes well known that minimal injuries or a mild illness is the “ticket” home. There may be an avalanche effect on other members of the unit that would greatly affect the combat readiness of the command, far more than just the individual soldier’s presence or absence from the battle. This is referred to as the “floodgate phenomenon” and can render an entire unit ineffective for combat. If this were to occur, the ultimate outcome of the battle, or even the war, could be in jeopardy and many more casualties could follow. This knowledge may help strengthen the resolve of the physician in dealing with the soldier who is minimally wounded or appears to be a combat stress casualty. However, if this same patient is brought in again with serious wounds or is killed in action, the physician certainly may feel some sense of guilt for the patient’s injury or death. An even more difficult situation might arise if these wounds were self-inflicted. In this case, the physician would very likely feel personally responsible for the soldier’s death or injury. This would almost certainly affect future return to duty decisions made by this physician. It is impossible to resolve this issue without significant preliminary thought and evaluation. Even with the most optimal support and proactive approach, this tension may lead to an inability to continue to provide care and the physician may become a psychological casualty himself.

### Combat Stress Disorder

One of the areas where issues other than pure mixed agency operate is in combat stress disorder.

Clearly, under current Army doctrine<sup>5</sup> the earliest and closest treatment is in the patient’s best interest. The concept of beneficence would mandate this course of action. During World War I and World War II, for instance, it was noted that soldiers experiencing combat stress reaction could often be returned to combat in 24 to 48 hours, if they were appropriately evaluated and treated when they appeared at the aid stations. A reassuring “chat” with the physician or mental health professional, in which it was noted that theirs was a normal response to the horrors of war, was key. In addition, soldiers were provided, when possible, with a shower and “three hots and a cot” (three hot meals and a cot for sleeping). This approach came to be known as PIES (proximity to the battlefield; immediacy of intervention after symptom onset; expectancy of recovery to full duty capability; and simplicity of treatment).<sup>6</sup> The history, development, and application of these principles is fully explored in *Military Psychiatry: Preparing in Peace for War*<sup>7</sup> and *War Psychiatry*.<sup>8</sup>

However, if the patient is considered to have full capacity for making decisions and indicates an unwillingness to return to combat despite a PIES intervention, the response might be to allow that patient to participate in making those decisions, including the decision to be removed from the battlefield. In time of conflict, this may have a negative effect on both the patient and the physician. The patient likely will be subjected to a court-martial for refusing to return to duty. The physician may also be subjected to disciplinary proceedings for his actions. In addition, it is likely to have very negative effects on unit morale and may also contribute to an evacuation syndrome in which numerous other soldiers present with the same complaints.

In the guise of respecting the patient’s autonomy, the physician may be tempted to diagnose the patient as having a more serious psychological disorder and to medically evacuate him from the theater. This course of action contains its own pitfalls. Although it “protects” a patient either from further combat or from the legal ramifications of refusal to fight, it carries an extreme psychological price tag.

During Vietnam, for example, many physicians, including psychiatrists, inappropriately evacuated casualties, especially during the latter stages of the conflict when the Vietnamization policy (letting the Vietnamese fight their own war, thus minimizing American casualties) was put in place. Many of these soldiers developed psychological sequelae as a result of the questionable circumstances of their



premature departure from their fellow soldiers. This psychological morbidity is due to the soldier-patient's self-perception of failure or his feelings of guilt at having his comrades injured or killed while he has "escaped."<sup>9(p119)</sup> This can lead to conflict within the physician, who may feel uneasy in his paternalistic role of "knowing" that he is treating the casualty with the "four Rs" (reassure, rest, replenish, and restore confidence) even if the soldier consistently and apparently rationally requests evacuation.

Army doctrine stresses the need to override these soldier requests to be removed from combat. As long as the soldier has not committed "serious misconduct," the soldier will best respond to treatment in proximity to his unit with the full expectation that he will return to the unit. Therefore, in this situation, the ethical dilemma is not only that of mixed agency but also the conflicting principles of beneficence (weak paternalism) and respect for the patient's autonomy.

A related issue is whether the patient with combat stress reaction is able to be fully autonomous. If it is possible to declare this patient at least temporarily incapable of participating in decisions, it greatly relieves this tension. The patient who is in the acute phase of a serious combat stress reaction is unlikely to be able to process all information and details well and may be incapable of participating in decision making, at least for that short interval until he responds to treatment.

A more difficult issue would be a patient who continues to request evacuation, even after the expected brief course of "therapy." Is the physician justified in this circumstance in returning the soldier to his unit over the soldier's expressed and continued desire? Should the benefit from the expected ultimate response to the doctrinally correct expectancy of treatment determine the appropriateness of overriding those wishes? How does the physician balance these seemingly exclusive courses of action? How autonomous is a soldier who is being sent into battle? Not very. Clearly the very fact that this person is being *ordered* to participate in combat raises a serious question of his being truly autonomous. The best response may be to attempt, as far as is possible, to respect the somewhat limited autonomy of the person, while understanding that as a soldier, by his implicit acceptance of his role, he has given up a portion of his right to be fully autonomous.

An additional stressor for the physician is the knowledge that if returned to his unit, the soldier may be injured or killed. This can be extremely difficult for the physician to accept. He is likely to

question if it is better to be severely wounded or killed or to go through life with the psychological morbidity following an improperly treated combat stress reaction. Would this patient have been better served by allowing him to be medically evacuated or to have been counseled to seek administrative return from the theater? Is it better to undergo a court martial and to be punished judicially (recognizing that he would be very unlikely to receive the death penalty) but to be physically intact and able to go about his life. It is truly difficult, if not impossible to generalize these decisions, but rather it is better to attempt to elucidate the principles and identify the morally relevant criteria for decision making.

### **"Preserve the Fighting Strength"**

In the previous edition of the Army's medical doctrinal manual, FM 8-55,<sup>10</sup> *Planning for Health Service Support*, the return of soldiers to duty was given high priority (Exhibit 13-1). This is congruent with the AMEDD (Army Medical Department) motto, "Preserve the Fighting Strength," especially if the primary role of a physician is interpreted as supporting the command, possibly at the expense of the individual patient. However, in the most recent edition of FM (Field Manual) 8-55,<sup>11</sup> medical battlefield rules are presented (Exhibit 13-2). In this schema, return to duty is in last place. Of greater importance are keeping a medical presence with the soldier, keeping the command healthy, and saving lives. Even providing "state of the art care" is ranked above returning soldiers to duty.

This shift in priorities places the needs of the individual soldier ahead of the duties to the command. It must be noted, however, that the 1994 version of FM 8-55 indicates that this listing of priorities is provided in the context of assisting physicians when priorities are in conflict, specifically in the realm of designing and coordinating health service support (HSS) operations. Although this ranking is, perhaps, conducive to a more comfortable position for many physicians, it does somewhat blur the role-specific duty of the military physician to the command and to the overall mission as discussed by Howe in Chapter 12.

### **Informed Consent**

On the battlefield, it is unlikely that truly informed consent can be obtained. The model for the soldier before he is wounded is certainly not one of informed consent, which could be summarized as:



## EXHIBIT 13-1

### RETURN-TO-DUTY CONSIDERATIONS DURING THE COLD WAR

The 1985 edition of Army Field Manual 8-55, *Planning for Health Service Support*, discussed the battlefield scenarios expected in a conflict with the former Soviet Union. The following excerpts are provided to give the reader a sense of the climate at that time for medical service providers.

#### PREFACE

This manual provides guidance to health service support (HSS) planners at all levels within a theater of operations (TO). It presents the basic steps associated with planning: principles of planning, the staff estimate process, and base development. It includes rates and experience factors used in planning. The manual then addresses planning for HSS centered around nine essential functions. The nine functions are evacuation; hospitalization; health service logistics; medical laboratory services; blood management; dental services; veterinary services; preventive medicine services; and command, control, and communications. Using this process will insure a complete and coordinated HSS plan. This plan will ultimately result in the effective delivery of health care and the efficient use of scarce resources.

\* \* \* \* \*

#### Section I. THE AIRLAND BATTLE CONCEPT

##### 1.1. General

The Army's basic concept is AirLand Battle....It emphasizes success on the modern battlefield centered around four basic tenets: initiative, depth, agility, and synchronization. These tenets will apply wherever we face an echeloned force built on the Soviet model or in other military operations anywhere in the world.

\* \* \* \* \*

##### 1.3. General

Health Service support plays a key role in developing and maintaining combat power. This fact was recognized by Major Jonathan Letterman, Surgeon of the Army of the Potomac during the Civil War. He noted:

"A corps of Medical officers was not established solely for the purpose of attending the wounded and sick; ... the labors of medical officers cover a more extended field. The leading idea, which should be constantly kept in view, is to strengthen the hands of the Commanding General by keeping his army in the most vigorous health, thus rendering it, in the highest degree, efficient for enduring fatigue and privation [*sic*], and for fighting. In this view, the duties of such a corps are of vital importance to the success of any army, and commanders seldom appreciate the full effect of their proper fulfilment [*sic*]."

##### 1.4. Planning for HSS

In the AirLand Battle, the extended battlefield stretches HSS capability to the maximum. It presents an unprecedented challenge to the health service support planner as well as to the tactical commander who is charged with fighting the battle. While the *responsibility* for what is done and what is not done is the commander's alone, he must rely on his staff and his subordinate commanders to execute his decisions. He must also look to his HSS planners and medical commanders to anticipate his plans and decisions so that they may continue to sustain his command in the absence of orders and communications....

\* \* \* \* \*

##### 1.5 FOCUS OF HEALTH SERVICE SUPPORT

As previously stated, the AirLand Battle offers significant challenges to the tactical commander and the health service support planner. As the battlefield becomes increasingly lethal, sus-

(Exhibit 13-1 continues)

**Exhibit 13-1** *continued*

taining the health of the fighting forces, long a role of the US Army Medical Department, becomes a critical factor in the success or failure of friendly forces. Proper planning enhances the capability of medical units to provide effective HSS and ultimately increases the chances for survival of the soldier on the battlefield. Forward support describes the character that health service support must assume. Thus, the focus of the thrust of HSS is to maximize the return-to-duty rate to conserve the human component of the combat commander's weapons system.

Source: US Department of the Army. *Planning for Health Service Support*. Washington, DC: DA; 15 February 1985. Field Manual 8-55: 1-1-1-5.

You are requested to take that hill. If you do, you will subject yourself to enemy machine gun fire. You may be killed or wounded. If you do not charge that hill, you may be subjected to the ridicule of your comrades and may even be tried under military law and possibly sentenced to death.

Of course this isn't the appropriate time or the place for informed consent. The soldier is *ordered* to "take that hill," and that is that.

The physician, as well, will not be able to comply with the ideal of informed consent. For truly informed consent to occur, the patient must be free of coercion, be capable of understanding the courses of action available, and be free to act on the decision.<sup>12(p143)</sup> In combat there are forces that are coercive to the patient in making his decision, including limited supplies, limited personnel for providing care, limited evacuation assets, and the possibility of enemy action. The patient will suffer from all the same difficulties in understanding the courses of action as do civilian patients in an elective setting, but will have the additional difficulties seen in any emergency situation compounded by the exigencies of combat. In addition, he will very possibly not be freely able to act on his request. It truly may not be available to him. If the patient requests evacuation and no assets are available, or if supplying them would compromise the mission, this course of action is not really available to him. If the patient desires a surgical operation in an environment that is not potentially contaminated, has no chance of enemy action during the procedure, and a guarantee that he will not be moved during his convalescence, this will also be unavailable to him. Again, the best to hope for is that there will be some semblance of informed consent offered to the wounded, but it will be clearly far less than that expected in the civilian sector, or in the military during peacetime.

### **Beneficence for the Soldier in Combat**

Beneficence for the individual is a hallmark of care in the civilian arena.<sup>12(p260)</sup> It generally translates into the military arena, although it may have to be altered due to circumstances on the battlefield. Although the desired action might be to do everything possible for the individual patient, including protecting him from any potential harm, this may not be possible in many situations. On the battlefield, it is difficult to determine exactly what is the beneficent action. Sometimes the action that seems most likely to help the patient may, on further reflection (or in retrospect), be exactly the worst decision for him. Sometimes the patient is better off with his unit, even if this may place him at further risk for injury. There are significant benefits from the unit cohesiveness and support he may derive from his comrades.

It is also possible that the soldier may not request appropriate care (or may choose inappropriate care) based on his impression that this may improve his chances of being removed from the dangerous situation. In a case such as this, there may be justification for an increased amount of paternalism, particularly if the requested course will limit the soldier's combat effectiveness. The decision to treat the soldier, potentially against his wishes, is one that concerns all physicians in uniform. However, it should rarely arise except in combat or in situations requiring advance preparation for combat such as the current anthrax and smallpox vaccination programs. Although the option to treat without consent is available to the military physician through the chain of command,<sup>13</sup> it is not usually exercised. The reasons for this option being infrequently exercised are explored more fully in Chapter 27, A Proposed Ethic for Military Medicine. In peacetime military medical care, the paradigm is essentially that of the civilian model during normal operation,

## EXHIBIT 13-2

### MEDICAL BATTLEFIELD RULES

The 1994 edition of Army Field Manual (FM) 8-55, *Planning for Health Service Support*, explains the medical battlefield rules, and reflects the impact of the breakup of the former Soviet Union. The United States is the sole remaining superpower in a world in which, at least for the foreseeable future, its military will more likely deploy to “operations other than war,” rather than total combat. The 1994 edition of FM 8-55 provides additional guidance to help the military medical professional resolve system conflicts when they arise. This allows the professional a greater exercise of autonomy than seen in previous editions of this FM.

#### PREFACE

This manual provides guidance to health service support (HSS) planners at all echelons of care within a theater of operations (TO). It contains a digest of the accepted principles and procedures pertaining to HSS planning. Information in this publication is applicable across the spectrum of military operations. It is compatible with the Army’s combat service support (CSS) doctrine.

....

#### 1.1. The Army’s Keystone Doctrine

Field Manual 100-5, the Army’s keystone doctrinal manual, describes how the Army thinks about the conduct of operations. It is a condensed expression of the Army’s participation in diverse environments in terms of what the forces does in operations other than war (OOTW) and how the Army conducts war.

#### 1.2. Range of Military Operations

- a. The US seeks to achieve its strategic aims in three diverse environments.
  - (1) *Peacetime*. During peacetime, the US attempts to influence world events through those actions which routinely occur between nations....
  - (2) *Conflict*. Conflict is characterized by confrontation and the need to engage in hostilities short of war to secure strategic objectives. Although the American people, our government, and the US Army prefer peace, hostile forces may seek to provoke a crisis or otherwise defeat our purpose of deterring war by creating a conflict. At the point where diplomatic influence alone fails to resolve the conflict, persuasion may be required, and the US could enter a more intense environment in which it uses the military to pursue its aim.

#### NOTE

The Army classifies its activities during peacetime and conflict as OOTW.

- (3) *War*. The most violent and high-risk environment is that of war, with its associated combat operations.

....

#### 1-4. Need for a Health Service Support System

- a. The dynamics of our global responsibilities require a HSS system that is flexible to support the diversity of operations.
- b. Providing comprehensive HSS to Army operations requires continuous planning and synchronization of a fully integrated and cohesive HSS system. The system must be responsive and effective across the full range of possible operations. Medical unit commanders and HSS planners must be proactive in changing situations, applying the medical battlefield rules as the situation requires.

#### 1-5. Medical Battlefield Rules:

- a. The Health Service Support (HSS) planner and operator applies the following rules, in order of precedence, when priorities are in conflict:
  - (1) Maintain medical presence with the soldier.
  - (2) Maintain the health of the command.
  - (3) Save lives.

(Exhibit 13-2 continues)

**Exhibit 13-2** *continued*

- (4) Clear the battlefield.
  - (5) Provide state-of-the-art care.
  - (6) Return soldiers to duty as early as possible.
- b. These rules are intended to guide the HSS planner to resolve system conflicts encountered in designing and coordinating HSS operations. Although medical personnel seek always to provide the full scope of HSS in the best manner possible, during every combat operation there are inherent possibilities of conflicting support requirements. The planner or operator applies these rules to ensure that the conflicts of HSS are resolved appropriately.
- . . . .
- d. By way of illustration, consider a rapid assault of short duration where the composition of the task force precludes deployment of a definitive medical care facility. A medical support conflict now arises between supporting the commander's intent and providing optimal care to the soldiers. The conflict can be resolved appropriately by applying the battlefield rules. Planners must increase the medical presence with the soldiers to resuscitate casualties and maintain stabilization pending evacuation. Greater reliance on forward medical presence compensates for the inability to employ hospitals near the battlefield, supports the commanders' intent, and still provides the patient with state-of-the-art medical care within the limitations imposed by the battlefield. The battlefield rules are thereby used as a means of conflict resolution.

Source: US Department of the Army. *Planning for Health Service Support*. Washington, DC: DA; 9 September 1994. Field Manual 8-55: 1-1-1-3.

in that both strive to return the patient to full health. Patients are involved in their own care decisions and their wishes are typically respected. If a patient decision, however, will prevent the soldier from continuing his military service, he is informed of this. The patient will typically then have the option of deciding what course his medical care will take and if this would preclude further military service, the soldier may be administratively separated from the military.<sup>14</sup> In combat, however, this decision may rest on factors outside the control of the patient or even of the physician. There are policies or procedures that will be enforced over their wishes. This is based on federal statutes, including USC (United States Code) 10,<sup>15</sup> in which the Secretary of the Army has the option to direct medical treatment of soldiers, without their consent if necessary. These statutes were generated by the requirements society legitimately places on those in the military, who are charged with protecting the society and its founding principles as outlined in the US Constitution.

An example of this occurred during the Persian Gulf War when US servicemembers were directed to take pyridostigmine bromide (PB) as a pretreatment against nerve agent exposure. This decision was made based upon intelligence information that the threat of nerve agent use by Iraq was very high and experimental evidence that there was benefit to individuals by reversibly binding the acetylcholinesterase receptors by PB, rather than irreversibly binding by

nerve agent. It was recognized that there could be side effects to PB and that there may be soldiers who would "autonomously" decide to not take PB, but the decision was made both from an individual beneficence position ("The military has a duty to take all available reasonable actions to protect its members.") as well as from a mission accomplishment position ("If this soldier becomes a chemical casualty, he, and potentially other soldiers caring for him, will become ineffective for combat."). A nonmedical analogy is that of ordering soldiers to wear chemical protective overgarments and Kevlar body armor, even in hot environments with the concomitant risk of heat injury, to help protect them from true or perceived harm. The individual soldier does not have autonomy to make decisions about the battle uniform and may not have autonomy in this case (regarding taking PB) as well.

### **Enforced Treatment for Individual Soldiers**

In deciding in favor of enforced treatment for soldiers, it is important to have an ethical basis for one's decision. Factors that have moral weight include beneficence to the individual soldier, duties to the other soldiers in the unit, duties to the command, and duties to society. Arguments against paternalistic treatment of soldiers would include attempts to preserve the autonomy of the soldier, concerns for abuses of the practice, questions of the intent, and potential violations of international law.



### *Arguments for Enforced Treatment*

In examining beneficence, which at least at the surface seems to be in conflict with autonomy, it is important to look carefully at obligations implied to the individual. When an individual enters the military (currently as a volunteer because there is no draft in effect) the military makes an implicit promise to give the soldier the best medical support this country is able to provide. This promise is made with the understanding that it is extremely important for soldiers to feel they are able to risk injury in the course of their duties. Soldiers fear injury and disability much more than they fear death, an outcome toward which they typically have a fatalistic attitude.<sup>16</sup> If the military has made an implicit promise that the best care is available, does this automatically lead to the assumption that this care should universally be applied in all situations to all soldiers? Arguments in favor of this presumption would, of necessity, be based on the paternalistic notion that the military knows what is best for all individuals. This is not a foreign concept to those in the armed forces because there are many examples seen in the daily lives of soldiers (eg, mandatory changes of socks, mandatory canteen checks, and vaccinations prior to deployment). It is a basic tenet among line officers that there are some things that the command must (and will) decide for everyone within the command. This is not only perceived to be necessary for preserving the fighting strength of the personnel within the command to allow for the mission to be accomplished, but is also perceived as the obligation of the command to the well-being of its people. The use of experts in various areas to allow the commander to make decisions for his entire command and the hierarchical structure of the military foster this line of reasoning. It may be necessary for the command to maintain overall control of these decisions and for the physician, as a member of the command structure, to treat soldiers involuntarily.

The military also has a very strong obligation to the other members in the unit. If one individual can refuse treatment, and in so doing increases his chances of becoming a casualty, this has serious implications on the other members within that unit. They would be required to assist in his evacuation, if he is injured or becomes ill, or in the recovery of his body, if he is killed. There is certainly a risk involved in these activities as other soldiers may be injured or killed attempting to assist a fallen comrade. It is also apparent that if the soldier is incapacitated and unable to perform his portion of the

mission, his duties will fall to some other member of the unit. If his role in the operation is not performed, the safety of the individuals on his right or left is compromised. The likelihood of their becoming casualties is increased. This can have a snowballing effect on the well-being of the entire unit. This strongly favors enforced treatment.

There is also a duty to the command, both on the part of the individual soldier as well as on the physician. On the part of the soldier, he has sworn an oath to obey the lawful orders of those in positions over him, as has the physician,<sup>17</sup> and thereby he is required to submit to the decisions of his commander. The physician, as well, through his oath of office<sup>18</sup> and commission<sup>19</sup> has volunteered his art and craft to support those in command. This is not a total acceptance of any and all orders<sup>14</sup> but there are factors involved in the decision to issue the order of which the physician may not be fully aware. (See Chapter 12 for a further discussion of this topic.) These factors may influence the commander in his decision to require treatment for the troops in his units. Because the physician is involved in advising the commander in medical matters, he is more likely to be aware of some of these issues and therefore more likely to understand the decision process. In most cases the commander makes decisions that result in enhancing the overall welfare of his troops. If there is serious concern over the correct medical facts in the order, the physician should attempt to clarify the rationale for the order and discuss the medical facts, as he interprets them, with the commander and attempt to resolve any differences.<sup>20</sup> In an extreme situation, the physician may need to request to be relieved of his duties and request court-martial if he firmly believes the course of action chosen by the commander is illegal or morally wrong.<sup>21</sup> This concept is developed more fully in Chapter 27, *A Proposed Ethic for Military Medicine*.

As a member of the overall society, the physician also has a responsibility. In war, particularly in a war whose outcome is uncertain, a duty to society would support the concept of "preserve the fighting strength" and would allow enforced treatment of soldiers. If the soldier refuses a treatment and thereby potentially is incapable of completing his mission, it may be in society's interest to have the treatment involuntarily given to the soldier. This may cause significant distress in the physician who is told to administer the treatment forcibly to the soldier. Again, it is best to anticipate this tension and examine these issues prior to the actual situation arising.

### Arguments Against Enforced Treatment

Alternatively, refusing to administer the treatment may be ethically defended on those grounds previously stated. The vulnerable soldier has already given up so much of his autonomy that it may seem unconscionable to remove this last amount. It is antithetical to respecting his dignity as a person to forcibly treat him. It really doesn't matter what motives the soldier has in refusing—it still is onerous to forcefully administer the treatment. Irrespective of other actions that can be taken against the soldier's permission, it is somehow different when one begins talking about medicine. Once a soldier becomes a patient, his status changes in many ways. Thus he has a different claim upon the system. Most oaths for physicians also note that persons as patients will not be used as means to another's end. In effect most arguments for enforcing treatment are furthering other's goals at the risk to or expense of the patient.

There is also a concern over generalizing this relatively limited use of a policy into one that has great potential for abuse. If it is widely accepted that the commander (or the physician acting for the commander) has the ability to forcibly treat any patient presenting for care, this increases the already *mildly* coercive environment soldiers exist within and could easily lead to the patient being forced to submit to treatment that won't clearly help him (or may in fact harm him). If this is the policy, it is also possible that the patient will expect the physician to order the treatment, no matter what the patient wants. Therefore the perception of the patient is that he really doesn't have any choice anyway. This would clearly lead to a fractured physician-patient relationship and a failure of any possible informed consent in military medical practice.

There could be an unrecognized, or even recognized, desire on the part of the physician to impose

unproved or experimental treatment on the patient. The motive could be a scientific desire to advance medicine while somewhat circumventing the normal controls on scientific experimentation. It could, however, be more sinister and approach the travesties of medical care and experimentation the Nazi physicians forced on their victims.<sup>22</sup> The clear concern is that such a policy needs to be carefully examined and reviewed prospectively. Parenthetically, this issue needs to be evaluated for enemy prisoners of war (EPWs). Experimentation upon prisoners is clearly prohibited under Article 13 of the Geneva Conventions regarding prisoners of war, which states that "no prisoner of war may be subjected to physical mutilation or to medical or scientific experiments of any kind which are not justified by the medical, dental or hospital treatment of the prisoner concerned and carried out in his interest."<sup>23</sup> However, there is a difference between experimentation and treatment. Treatment given to captured soldiers must be able to be differentiated from experiments. It would seem that any treatment involuntarily given to troops should also be able to be given without questions of experimentation to captured soldiers based on the principle of justice. If the treatment is being given to US soldiers to enable them to continue the mission and the EPW refuses this treatment, it is clear that this decision should be respected, but that the treatment should not be withheld from the prisoner if it is requested. If, on the other hand, the treatment is being given for clear medical indications, the refusal by the EPW seems more problematic, but should probably be respected based on autonomy considerations alone. The potential for abuse of captives and memories of German and Japanese experiments on POWs are strong arguments for allowing EPWs to exercise decision making wherever possible, particularly in medical decisions.

## BATTLEFIELD TRIAGE

Battlefield triage has been described as "the infamous process" that forces a physician to make decisions *not* to treat patients whom he judges to have little chance of recovery.<sup>24</sup> Under certain conditions this may be true, however, the triage concept does not have a totally ignoble past. The word comes from the French verb *trier*, meaning "to sort." Initially it was used to categorize merchandise such as coffee or wool. During Napoleon's campaigns his chief surgeon, Baron Dominique Jean Larrey, sorted the casualties and consistently began treating the most seriously wounded first, "without regard to rank or distinction."<sup>25</sup>

### The Concept of Triage

Triage is defined as the "screening and classification of wounded, sick, or injured patients during war or another disaster to determine priority needs and thereby ensure the most efficient use of medical and surgical manpower, equipment, and facilities"<sup>26</sup> or "a system used to allocate a scarce commodity, [such] as food, only to those capable of deriving the greatest benefit from it."<sup>26</sup> The *Emergency War Surgery* handbook defines triage as "the evaluation and classification of casualties for purposes of treatment and evacuation. It is based on the principle of accom-

plishing the greatest good for the greatest number of wounded and injured men in the special circumstances of warfare at a particular time....Sorting also involves the establishment of priorities for treatment and evacuation."<sup>27</sup>(p181)

Triage actually occurs in all aspects of medicine, whether one is operating in a mass casualty situation or not. In practice, one "triages" patients based on the urgency of their complaints, by the number of appointments available, or by the availability of specialty care. In a nonaustere environment, which is seen in most emergency rooms today, there is a triage desk where patients are first checked in. After sorting patients and symptoms, the most critically ill will be cared for first. This patient-centered approach to triage has been the model for many years. However, it is becoming increasingly more common for issues involving allocation of scarce resources to arise in civilian medicine and for triage decisions to be based on limited resources. Although this may not approach the difficulties seen on the battlefield, there are significant moral tensions developing. As resources become more and more scarce (limitations based on financial decisions), these problems will assume a greater role in the future. Mass casualty situations occur in the civilian sector as well and may require institution of some other prioritization procedure during times of limited resources.

On the battlefield, triage based on the most critically injured being treated first holds when there is no overwhelming demand for facilities. This would require full resupply capabilities and the expectation that there would be no likelihood of overwhelming numbers of casualties in the near future. These conditions may be impossible to guarantee on the battlefield and a more austere environment triage scheme may need to be employed.

### Establishing and Maintaining Prioritization of Treatment

The sorting of patients, as delineated in *Emergency War Surgery*, assigns them into five groups in decreasing order of medical urgency<sup>27</sup>(pp184-186):

- (1) urgent: require immediate intervention if death is to be prevented;
- (2) immediate: require procedures of moderately short duration to stabilize severe, life-threatening wounds;
- (3) delayed: require operative intervention but can tolerate delay without compromising successful outcome;
- (4) minimal (or ambulatory): require minimal

surgical attention no more than cleansing, local anesthetic for debridement, and dressings. These are the most common injuries and include minor lacerations, minimal burns, and small soft tissue injuries; and

- (5) expectant: wounds are so extensive that even if this patient were the sole casualty, his survival is still unlikely.

Exhibit 13-3 discusses these five groupings in greater detail.

### Models of Triage

I propose that there are actually three basic models of triage used, depending on the situation and circumstances. The previously described model is the one seen in *nonaustere conditions*. When time, personnel, equipment, or supplies are significantly diminished, such that there are true limitations in resources, the second model for more *austere conditions* will need to be implemented. The third model will involve *extreme conditions* and decisions that would be very difficult under normal circumstances; it will rarely need to be implemented.

Under the first, or nonaustere conditions model, the most seriously injured patients would be treated first. No patients would be declared expectant, at least until some significant attempt at resuscitation had occurred. It is clear that some patients may have overwhelming injuries and will die whatever the level of support and resuscitation. Indeed, this could be the case in an American civilian trauma center today. For these patients, once this is evident, efforts could be recognized as futile and care could be withdrawn or withheld, just as is done in civilian situations. This is the model that is most frequently seen and that occurred throughout the Persian Gulf War for most units, including American hospitals for Iraqi POWs.

The second model of triage, that seen in austere conditions, could be viewed as an attempt to save as many lives as possible. In so doing, some patients will die who otherwise could have lived had adequate resources been available. This decision would potentially be quite difficult, however, it has certain parallels in the civilian sector and is analogous to allocation decisions that are becoming much more frequent. Under this model, those patients most likely to benefit from treatment would be treated first, even if an individual patient may die who otherwise would have benefited from intervention. Some of these patients who died would have been declared expectant; others may have been too complicated to respond quickly to treatment. This

## EXHIBIT 13-3

### TRIAGE: ESTABLISHING PRIORITIES OF TREATMENT

---

*Emergency War Surgery*, a NATO (North Atlantic Treaty Organization) handbook, offers the following guidance concerning the priorities of treatment for battlefield casualties:

In order to cope effectively and efficiently with large numbers of battle casualties that present almost simultaneously, the principles of triage, or the sorting and assignment of treatment priorities to various categories of wounded, must be understood, universally accepted, and routinely practiced throughout all echelons of collection, evacuation, and definitive treatment....Not uncommonly, the most gravely injured are the first to be evacuated from the collection points. They will also be the first to arrive at the definitive care facility. The receiving surgeon (triage officer) must guard against overcommitting his resources to those first arrivals prior to establishing a perspective of the total number and types of casualties still to be received. It is easier to assign priorities of care to individual casualties if the medical officer has a feel for the usual anatomical distribution of war wounds. Survivors present with a reasonably consistent pattern of wound distribution....With experience, the forward surgeon comes to recognize this recurring pattern and the relatively consistent distribution of wound types and location in groups of battle casualties....Application of the following criteria makes the receipt, triage, and treatment of large numbers of simultaneously arriving casualties more manageable, while at the same time minimizing the confusion and calamity that otherwise could prevail.

**Urgent:** This group requires urgent intervention if death is to be prevented. This category includes those with asphyxia, respiratory obstruction from mechanical causes, sucking chest wounds, tension pneumothorax, maxillofacial wounds with asphyxia or where asphyxia is likely to develop, exsanguinating internal hemorrhage unresponsive to vigorous volume replacement, most cardiac injuries, and CNS [central nervous system] wounds with deteriorating neurological status.

Therapeutic interventions range from tracheal intubation, placement of chest tubes, and rapid volume replacement to urgent laparotomy, thoracotomy, or craniotomy. Shock caused by major internal hemorrhage will, in these circumstances, require urgent operative intervention to control exsanguinating hemorrhage.

If the initial resuscitative interventions are successful and some degree of stability is achieved, the urgent casualty may occasionally revert to a lower priority. The hopelessly wounded and those with many life-threatening wounds, who require extraordinary efforts, should not be included in this category.

**Immediate:** Casualties in this category present with severe, life-threatening wounds that require procedures of moderately short duration. Casualties within this group have a high likelihood of survival. They tend to remain temporarily stable while undergoing replacement therapy and methodical evaluation. The key word is temporarily. Examples of the immediate category are: unstable chest and abdominal wounds, inaccessible vascular wounds with limb ischemia, incomplete amputations, open fractures of long bones, white phosphorous burns, and second- or third-degree burns of 15–40% or more of total body surface.

**Delayed:** Casualties in the delayed category can tolerate delay prior to operative intervention without unduly compromising the likelihood of a successful outcome. When medical resources are overwhelmed, individuals in this category are held until the urgent and immediate cases are cared for. Examples include stable abdominal wounds with probable visceral injury, but without significant hemorrhage. These cases may go unoperated for eight or ten hours, after which there is a direct relationship between the time lapse and the advent of complications. Other examples include soft tissue wounds requiring debridement, maxillofacial wounds without airway compromise, vascular injuries without adequate collateral circulation, genitourinary tract disruption, fractures requiring operative manipulation, debridement and external fixation, and most eye and CNS injuries.

**Minimal or Ambulatory:** This category is comprised of casualties with wounds that are so superficial that they require no more than cleansing, minimal debridement under local anesthesia, tetanus toxoid, and first-aid-type dressings. They must be rapidly directed away from the triage area to uncongested areas where first aid and non-specialty medical personnel are available. Examples include burns of less than 15% total body surface area, with the exception of those involving the face, hands, or genitalia. Other examples include upper extremity fractures, sprains, abrasions, early phases of symptomatic but unquantified radiation exposure, suspicion of blast injury (perforated tympanic membranes), and behavioral disorders or other obvious psychiatric disturbances.

(Exhibit 13-3 continues)



**Exhibit 13-3** *continued*

**Expectant:** Casualties in the expectant category have wounds that are so extensive that even if they were the sole casualty and had the benefit of optimal medical resource application, their survival still would be very unlikely. During a mass casualty situation, this sort of casualty would require an unjustifiable expenditure of limited resources, resources that are more wisely applied to several other more salvageable individuals. To categorize a soldier to this category requires a resolve that comes only with prior experience in futile surgery that ties up operating rooms and personnel while other more salvageable casualties wait, deteriorate, or even die. The expectant casualties should be separated from the view of other casualties; however, they should not be abandoned. Above all, one attempts to make them comfortable by whatever means necessary and provides attendance by a minimal but competent staff. Examples: unresponsive patients with penetrating head wounds, high spinal cord injuries, mutilating explosive wounds involving multiple anatomical sites and organs, second- and third-degree burns in excess of 60% total body surface area, convulsions and vomiting within twenty-four hours of radiation exposure, profound shock with multiple injuries, and agonal respiration. Exposure to radiation or biologic and chemical agents when presenting in conjunction with conventional injuries will alter the above categorization. The degree to which such agents compound the prognosis is somewhat variable and difficult to specifically apply to a mass casualty situation. A safe practice is to classify the exposed casualty at the lowest priority in his category. It has been stated that those in the immediate category with radiation exposure estimated to be 400 rads be moved to the delayed group, and those with greater than 400 rads be placed in the expectant category. Those with convulsions or vomiting in the first 24-hours are not likely to survive even in the absence of other injuries. Mass casualty situations are highly probable when troops have been exposed to radiation or chemical or biological agents. There must be areas set aside within the hospital to safely isolate these types of patients, and special procedures must be established to safeguard the attending medical personnel.

Source: Bowen TE, Bellamy RF. *Emergency War Surgery*. Second United States Revision of The Emergency War Surgery NATO Handbook, Washington, DC: US Department of Defense; 1988: 184–186.

model fits in a utilitarian analysis in that the good for the whole is being maximized, but at the expense of individuals. An example of this model in practice occurred during mass casualty situations in Vietnam where resources were not available to treat all patients at one time and with maximal effect.

The third model of triage, that seen in extreme conditions, may arise on the battlefield, in which the battle is going against US troops with a great chance that the line units will not have enough manpower to prevail against the enemy. This may require treating patients with less severe injuries first to preserve a diminishing fighting force. Under this model, patients with non-life-threatening injuries that, if treated, would not prevent the soldier from going back to battle, would be treated first. This has rarely been used in the American military but was the accepted model for triage in the German army during World War II.<sup>28</sup> An example from United States history is the use of penicillin in North Africa during World War II.<sup>29</sup> The decision was made to treat soldiers with venereal disease with the limited supplies of penicillin available rather than using it in patients with battle wounds, even if the injured patients might die without it. The reasons given were, indeed, the ability to return the soldiers with venereal disease to the

front lines to continue to fight, while those with battle wounds would be unable to return, even if given the penicillin.

### Examining the Extreme Conditions Model

The extreme condition model contradicts most decisions medical personnel make, and is a classic example of the conflict in dual agency, or duties to both the patient and the command. Obviously, the command has a great interest in having those minimally wounded soldiers back on the line, and may well support this scheme of triage, but many physicians would find this to be difficult and contrary to what one would do normally.

### Respecting the Autonomy of the Soldier

The individual patient who is severely injured may not desire his lower priority of treatment because it will necessitate his waiting for treatment while minimally injured patients are treated (and may significantly increase his chances of dying). Conversely, the minimally injured patient may not want to be treated before his severely injured buddy because the buddy may die if not treated promptly. He may also recognize that the faster he is treated,

the sooner he will return to the front where he may be more seriously injured, or killed. There could be tremendous pressures on the person performing triage to avoid making these decisions. The defense of the decision to treat the minimally wounded first could be made on the basis of a utilitarian approach. Under this analysis, the basic tenet of doing the “greatest good for the greatest number” would allow the decision to be made, not for the benefit of the individual patient, but rather for the good of the unit, the army, or the country. If by not returning the minimally wounded patient to duty, the unit is overrun, there are more casualties generated, the army is defeated, or the war is prolonged (or even lost), thereby causing great suffering in the country, then a strong argument is made for choosing to treat the minimally injured patient.

Conversely, the argument can be made that if these choices are consistently made, the unit will come to know that if one is wounded severely and requires maximum care it would not be given. This can affect the desire to fight or to place oneself at risk. The excellent medical care US troops receive during combat is a “force multiplier.”<sup>30</sup> Consistently making triage decisions using the extreme conditions model may well be considered a “force divider,” not only by diminishing the “will to fight” but also by possibly causing “competition” for medical care. One soldier may consider the less injured soldier in the next space as the only thing standing between himself and death. This is likely to destroy unit cohesiveness.

### ***Caring for Noncombatant Casualties***

It is also clear that enemy prisoners of war and civilian casualties would not receive priority care

under this triage model. This is in violation of Article 12 of the Geneva Conventions, which states that “[o]nly urgent medical reasons will authorize priority in the order of treatment to be administered.”<sup>3</sup> By invoking the extreme conditions model, the healthcare professional may be violating one of the most basic medical premises, which is that once injured and captured, the enemy is no longer a combatant but is instead entitled to the same basic human respect and concern for his medical needs as US military personnel.

### ***Understanding Military Doctrine***

US Army doctrine provides guidance for the medical professional facing varying battlefield scenarios. The rules of battlefield medicine as seen in Exhibit 13-2 are ranked in order of precedence. “Return to duty” considerations are the last priority. However, return to duty is still a major ethical dilemma for the medical professional on the battlefield and is difficult, if not impossible, to resolve using generalities. The extreme conditions model of triage has never been encountered in the modern US Army. Even during mass casualty situations in Vietnam triage first selected those most likely to be benefited by rapid treatment rather than selecting those most able to return to the front. Most medical professionals probably would have great difficulty implementing an extreme condition triage model. However, just because it is difficult doesn’t mitigate against preparing for such an implementation. The scenario of overwhelming mass casualties in the face of an advancing enemy force deserves study and analysis by individual medical professionals before they are actually in the unenviable situation of having to decide what to do.

## **EUTHANASIA ON THE BATTLEFIELD**

Physician-assisted dying is a major issue currently being discussed in the civilian sector. Initiatives to legalize physician aid in dying were narrowly defeated in Washington state as well as in California; it passed by a narrow margin in Oregon in 1994. This law survived challenges in court as well as a repeat referendum in 1997 after the Oregon Medical Association withdrew its support for it. Attempts to pass referenda supporting physician aid in dying have since failed in Michigan, Maine, and in other states, leaving Oregon as the only state permitting physician-assisted suicide. Attempts to overturn state laws prohibiting physician-assisted suicide have failed in the US Supreme Court in 1997 and in several state supreme courts, including Alaska, Colorado, and

Florida. Public opinion concerning this issue varies, often apparently depending on the actual wording of the survey, but seems to be pretty evenly divided. The issue remains one of the most hotly debated in all arenas. The issue also exists within military medicine for the same reasons as in the civilian sector, however, the battlefield adds new dimensions and difficulties.

### **Understanding the Dynamics of the Battlefield: The Swann Scenario**

The following scenario, published by Dr. Steve Swann in 1987 in *Military Medicine*,<sup>31</sup> presents a vivid picture of the ethical dilemmas facing the military physician.

**Case Study 13-1: A Hypothetical Scenario.** Three weeks ago US Naval forces in the Mediterranean launched air and sea attacks against military installations in Libya in response to increased terrorist activities known to originate from Mu'ammarr Quaddafi's regime. This was followed by the invasion of the 2nd Marine Division near Tripoli. This military action was applauded by Israel but condemned by most NATO [North Atlantic Treaty Organization] allies and, as expected, by the Arab world and communist block nations. US forces suffered few losses and easily secured the country with complete destruction of the Libyan Army. In retaliation, certain Arab countries attacked US forces in Libya and simultaneously invaded Israel. US Naval forces suffered minimal losses from the Soviet-supplied navies and air forces of these nations, and although the Marines have sustained moderate casualties, they still control the battlefield.

One week following the opening of hostilities in North Africa, Warsaw Pact Nations began unscheduled, large-scale "Training Exercises" near the East-West German border. Six days ago these units crossed into the Federal Republic of Germany and attacked NATO units to force a US withdrawal from Libya. The US refused, and combat in both regions has continued to escalate.

As a surgeon in a clearing station in direct support of the 11th Armored Cavalry Regiment defending the Fulda gap [a geographically strategic point for invasion along the border between East and West Germany], I have seen many casualties of all types. I knew that modern warfare would create great numbers of wounded and cause massive destruction, but I had no idea it would be this terrible. Our unit has taken 65% losses. Despite heroic actions, we continue to be forced back 30 to 60 km each day, but short of the Soviet doctrinal 100 km daily advance [Soviet doctrine indicating that to maximize disarray in the enemy's troops, Soviet forces should propel themselves 100 km a day, shocking, overpowering, and demoralizing the enemy with the rapid advance]. The 85th Guards Motorized Rifle Division oppose us, and their lines are 8 km away. They are expected to be at this location in 45 minutes. Intelligence reports that all severely wounded prisoners are being executed [by the Russians as they advance], for the Russians do not want to slow their attack to deal with the problem of caring for or transporting them.

In my clearing station I have no capability to hold patients or transport them with me. I can only triage, initially resuscitate, and then evacuate with higher command assets. At the present time we have 32 wounded, 17 of which are categorized as expectant. They include a German civilian with abdominal evisceration who is pleading to die, two unresponsive soldiers with extensive head wounds, two soldiers with 80-90% total body burns from chemical contamination, eight soldiers who have received a dosimeter-documented 825 rads after unknowingly crossing a nuclear-contaminated area and who continue to vomit and pass diarrheal stools, and a four-man tank crew all of whom received between 60 and 90% body surface area, full thickness burns after the fuel cell of their M60A3 exploded when hit with a Sagger anti-tank missile. The screams of the wounded could easily expose

our position to the attacking Soviet forces or to the Russian commando units known to be operating behind our lines.

The 3rd Armored Division, whom we are screening, will take 3 hours to get land evacuation to me. Air evacuation is not available since the Soviets have air superiority, and besides, we have already lost 80% of our helicopter assets [similar to Figure 13-3]. I lost 40% of my men and equipment, including another physician, a pediatrician, [similar to Figure 13-4] when our convoy was strafed by MiG-27's 2 days ago. I have not been resupplied in 2 days, and I am running short of everything, especially morphine, bandages, and IV fluids. I have just received orders to displace [to another location] in 15 minutes and be ready to accept new casualties from the intensified fighting in 30 more.

Oh, Lord, there is nothing medically I can do to extend the lives of these brave men. They are all doomed to die and suffer immeasurably until they do so. Need I kill these men? Should I take this merciful action so as not to postpone the unalterable?<sup>31</sup>

**Comment:** Although this scenario is outdated (it predated the demise of the Soviet Union) and the events did not occur, today's battlefield is nonetheless potentially one of massive destruction with weapons that have the potential to generate astronomical numbers of casualties. Thus, although the names of the conflicting forces and locales would be different in a future scenario, the scenario itself remains all too possible and clearly presents lessons to be learned.

Before attempting to answer the extremely difficult question with which this hypothetical scenario ends, a brief study of the history of battlefield euthanasia may be helpful. By examining some documented situations, it is possible that similarities and differences, as well as unifying themes may become more clear.



**Fig. 13-3.** This medical evacuation helicopter crashed during Operation Desert Storm in 1991. It is not known whether this was due to hostile fire or accident.





**Fig. 13-4.** This funeral service for a physician who died in a traffic accident (a) just prior to the ground war phase of Operation Desert Storm was conducted by the chaplain of the 28th Combat Support Hospital (b).

### A Brief History of Battlefield Euthanasia

Requests for battlefield euthanasia have, no doubt, occurred on battlefields as long as there have been battlefields. When men have taken up arms against one another, for whatever reason, there have always been those wounded who do not die immediately, but clearly cannot live for long, either because of their wounds or their circumstances. This can generate the desire to hasten their inevitable death, by both the wounded soldier as well as their comrades. These situations have probably occurred throughout history.

For instance, battlefield euthanasia requests are documented in the Bible as far back as the time of Abimelech (around 1100 BC) in the city of Thebes. Abimelech was a Judge of Israel who had captured Thebes but all the inhabitants had locked themselves inside a strong tower inside the city. He attempted to burn the tower and kill those inside, but as he approached it to set it on fire, “a woman dropped an upper millstone on his head and cracked his skull” (Judges 9:53).<sup>32(p346)</sup> He requested that his armor bearer kill him because he did not want history to record that he was killed by a woman; the armor bearer acceded to his request.

A more famous request occurred in 1010 BC when King Saul was wounded by the Philistines and asked his armor bearer to kill him because Saul was concerned about potential torture if he was captured. The armor bearer refused and Saul “took his own sword and fell on it” (1 Samuel 31:4).<sup>32(p419)</sup> The armor bearer also committed suicide. An interesting aside is that later in the account, an Amalekite, expecting to be rewarded by Saul’s enemy David, claimed to have been the one who “killed [Saul],

because [he] knew that after he had fallen, he could not survive” (2 Samuel 1:10).<sup>32(p419)</sup> David put the Amalekite to death for having the temerity to even contemplate harming Saul (the “Lord’s anointed”) much less killing him.

Ambroise Pare describes another case of battlefield euthanasia. Pare was a French barber surgeon who enlisted in the army of Francis I to perfect his training in surgery. In 1537 he was with the forces of Marshal Monte-Jan when they laid siege to Turin in Italy. After the city fell, he recounts an experience in which he came across several enemy soldiers wounded in an explosion. Two of these were still alive. An old French soldier happened by and after asking Pare if there were any hope for them, and learning that there was none, he “gently cut their throates (sic) without choler.”<sup>33(p22)</sup> Pare was horrified at what he perceived as an act of cruel revenge, and rebuked the soldier. The old man replied that he prayed to God that if he were ever in a similar situation, someone would “doe (sic) as much to him, to the end he might not miserably languish.”<sup>33(p22)</sup> There are countless other examples throughout history of euthanasia by a comrade on the battlefield.

Physicians’ roles in battlefield euthanasia have also been described. Napoleon’s physician, René-Nicolas Desgenettes, refused to give lethal doses of opium to soldiers dying of the plague.<sup>34</sup> During Napoleon’s retreat from Jaffa in 1799, there were several men suffering from bubonic plague who could not survive 24 hours even with the best medical care. The army, however, had to march. Napoleon ordered Desgenettes to give them a lethal dose of laudanum (opium) rather than leaving them to the mercy of the Turks. Desgenettes refused, believing that it was the obligation of the physician to



cure and not to kill. The reports are unclear after this, with some indication that the chief pharmacist, Royer, gave doses of opium to approximately 50 soldiers, but there is no indication that any of them died from receiving the medication.<sup>35</sup>

### A Civilian Example From a "Battlefield" Setting

A contrasting decision, albeit not involving military physicians and combatants, was documented in the book *Schindler's List*<sup>36</sup> in which two Jewish physicians were involved in the administration of hydrogen cyanide to four patients who could not be moved from a hospital before a *Sonderkommando Aktion* during the Holocaust. They defended this decision as the most ethical one because of the brutal and inhumane death expected when the Nazis came. The description of this decision is particularly poignant and is recommended for careful reading and reflection. The date is March 13, 1943; the place is the Jewish ghetto in Cracow, Poland.<sup>36(pp175-180)</sup>

**Case Study 13-2:** [Very early on the morning of March 13th, while they were still at home, the daytime medical staff of the ghetto hospital had heard the sound of ghetto residents being rounded up and shot. The staff had hastened to the hospital, where they worked quickly to send home as many patients as they could. When all but four patients had been sent home, the hospital director, Dr. B, told the remaining staff to go home. All but a senior nurse and another physician, Dr. H, had left.]

Dr. H sat among his last [four] patients, in darkness, grateful that they were isolated like this on the hospital's top floor, high above the street, alone with their pain and fever.

It seemed important to Dr. H that they somehow be spared the final panic of a mad volley of fire.

With an eye to the option of suicide, H had acquired a supply of cyanic acid solution. He knew that other doctors had too. To know he had access to cyanide had been a comfort for Dr. H on his worst days.

Doctors B and H did not speak much as they waited. They each had access to the cyanide, and [they both were] sadly preoccupied with it. There was suicide, yes. But there was euthanasia as well. The concept terrified H. He knew that a physician with common sense and a syringe and little else to guide him could add up like a shopping list the values of either course—to inject the cyanide, or to abandon the patients to the—Sonderkommando. But H knew that these things were never a matter of calculating sums, that ethics was higher and more tortuous than algebra.

Dr. B, H could tell, was also running through the options: Suicide. Euthanasia. Hydro-cyanic acid

Now, even if he and Dr. B made their decision, H didn't know if he had the rigor to feed the cyanide to the ill, or to

watch someone else do it

Out there on the balcony he heard the first noise. The Raus, raus! of megaphones.

Then he heard the first volley, loud enough to wake the patients.

He looked at Dr. B. Dr. B nodded at him, walked to the small locked pharmaceutical chest, and came back with the bottle of hydrocyanic acid. After a pause, H moved to his colleague's side. It would be shameful, H thought, not to cast his own vote, not to take some of the burden.

Dr. B called the nurse. "Give each patient forty drops in water." "Forty drops," she repeated. She knew what the medication was. "That's right," said Dr. B. Dr. H also looked at her.

When the nurse came with four medicine glasses, none of them even asked her what she was bringing them. Dr. H would never know if any of them understood. He turned away and looked at his watch. He feared that when they drank it, some noise would begin, something worse than the normal hospital gasps and gaggings. He heard the nurse murmuring, "Here's something for you." He heard an intake of breath. He didn't know if it was patient or nurse. The woman is the hero of this, he thought.

It was all as gentle as H had hoped. He looked at them—their mouths agape, but not obscenely so, their eyes glazed and immune, their heads back, their chins pointed at the ceiling—with the envy any ghetto dweller would feel for escapees.

Because of copyright  
considerations full case study  
is only available in printed text.

**Because of copyright  
considerations full case study  
is only available in printed text.**

**Because of copyright  
considerations full case study  
is only available in printed text.**

Thus far this discussion has presented scenarios that involve a military physician pondering euthanasia, soldiers euthanizing other soldiers, a physician refusing to euthanize soldiers, and a physician who knew of a decision for euthanasia, but was not directly involved in being the agent of death. (In the *Schindler's List* account, the person who prepared and administered the solution was a senior nurse.)

As these examples have shown, the agent actually administering the act of killing can vary from a fellow soldier to a physician. This discussion will now focus in on the role of the military health professional. The case presented by Swann is very difficult in that the patients are directly under medical care. As commander of a clearing station, the military physician has mixed duties to his patients and to the command. The patients certainly expect him to continue to provide care for them, but the command also expects him to be ready for more patients in the new location (and on time). He cannot take the patients with him and he also cannot "hide" by allowing a line commander to give the order for euthanasia because the patients are his responsibility.

#### **Available Courses of Action: The Swann Scenario**

The scenario published by Swann was presented in abstracted form to the battlefield medical ethics conference at Brooke Army Medical Center in San Antonio in May of 1990, approximately 3 years after it had first been published in *Military Medicine*.<sup>31</sup>

There were three basic courses of action identified at the conference, but there are almost infinite variations of these. The first course of action is to obey the order to retreat, and to euthanize all patients that cannot be moved. The second is to obey

order to retreat, but to leave the patients behind with a minimum amount of support from healthcare professionals and chaplains. A third possibility is to refuse to relocate the unit and to remain with the patients and provide all care possible to patients in the present position. Any of these courses of action could be chosen, and there may be some defensible argument for each. The general aspects of ethical decision making will be examined as applied to this case. These courses of action illustrate problems with each option.

## Ethical Analysis of Options

The three possible options for the physician in the Swann case will be addressed using several different ethical approaches. There are many other approaches as well, as a review of Chapter 2 in the first volume of this text clearly demonstrates. I have selected these three—principle-based ethical analysis, utilitarian analysis, and military specific analysis—as being the approaches most likely to offer assistance to the military medical professional in this particularly difficult situation.

### Principle-Based Ethical Analysis

In analyzing a case, it is usually helpful to use a systematic and standardized approach. In ethical decision making, a way of doing this is using the four principles discussed earlier in Chapter 2, *Theories of Medical Ethics: The Philosophical Structure*, in Volume I of this textbook. Briefly stated, the principles are:

- (1) Autonomy: the respect for a person's right to make his or her own decisions, having been given all necessary information to understand the probable outcomes of the decision;
- (2) Beneficence: doing good for the patient; involves acting in the patient's own best interest, without concern for outside interests;
- (3) Nonmaleficence: avoiding "doing harm" to the patient; *primum non nocere*; and
- (4) Justice: "giving to each his due"; distributing resources to patients based on the balancing of competing claims among all needy patients.

Because these principles have different agents and interests at stake, they can conflict with each other. The resolution of this tension is much of what ethical decision making is all about. For example,

in a situation where a patient may desire no treatment, including treatment that would clearly improve chances of survival, there is a clear tension between the patient's *autonomy* and the principle of *beneficence*. This was an obvious difficulty in the transition from a paternalistic healthcare system, where the "doctor knew best," to the system seen today where patient autonomy is the criterion for most decisions.

Another obvious area of conflict is between autonomy and distributive *justice* when there are limited resources. The decision as to who will live when not all can live, seen in the early rationing of dialysis, for example, is another very difficult issue (Exhibit 13-4). This is clearly a topical issue in today's environment of expensive, high-technology medical care. It will likely have even greater weight as the United States proceeds with healthcare reform.<sup>37</sup>

Using these four principles—autonomy, beneficence, nonmaleficence, and justice—the following analysis of this particular case, the Swann scenario, can be made.

**Autonomy.** Using the first principle, that of autonomy, one would want to examine the underlying issue of whether or not a soldier has true autonomy, or whether he has voluntarily or involuntarily given this up to some degree. It may well not be the autonomous choice of a soldier to attack a hill from which a machine gun is firing, but in the military this action is performed routinely. As discussed before, the soldier doesn't receive "informed consent" before his charge up the hill.

By analogy, a soldier who is injured probably doesn't have the autonomous choice as to what treatment he would receive and when he would receive it. There is considerable intrinsic loss of autonomy upon joining the military. There also may be overriding considerations (as seen in the scenario) preventing a patient from receiving all the care he might desire or request. Should patients be fully informed of the situation and their prognosis? It might be possible to discuss the situation with some of the "expectant" patients and allow, as much as possible, the patient to enter into the decision making process. However, this might just cause more suffering and anxiety when the patient learns of the true situation. If his wishes cannot be respected, this could be even more unnerving.

However, what if the patient requests active euthanasia after learning about the situation? It may well be the autonomous, expressed wish of the patient to be killed, both due to current suffering, as well as concern for greatly increased suffering caused by being captured (and presumably tortured or killed by the enemy). The latter is certainly a fac-

#### EXHIBIT 13-4

##### A DOCTOR REFLECTS ON LIFE AND DEATH DECISIONS

In the early 1970s when renal dialysis and kidney transplantation were being developed, a team at Walter Reed Army Hospital was involved in helping to determine who would receive these extraordinary, life-saving methods of treatment. I was a member of that team. The number of patients in chronic end-stage renal disease far exceeded the number of dialysis machines. The team's job was to evaluate the patients and their living related donors, for their psychological ability to go through these revolutionary new techniques. A separate committee of physicians and laymen determined who should be selected for dialysis. Collectively these two groups decided who would live and who would die. It was the ultimate conflict of interest. Some individuals tried to avoid this duty, but were told that they were the best and most qualified to do it.

Most of these patients wanted to start dialysis, and tried in every way to make a favorable impression, so that they would be selected. If they were not selected, or developed complications, many wanted help to let them die quickly and painlessly. Sometimes they killed themselves. This was particularly difficult for the nursing staff because the patients often asked to be euthanized. After a few months, the medical staff could usually tell who had the will to go on, and who didn't. A few nurses admitted to me that they had thought of granting the patient's wish [for euthanasia]. The only thing that kept us honest and faithful was to remind each other of our oath to do them no harm.

Fortunately, this dilemma lasted for only a few years. The federal government began to pay for renal dialysis, and the biomedical industry ensured that supply met the demand. Renal dialysis was soon available to almost everyone who needed it.

Source: James Collins, Colonel (Retired), Medical Corps, US Army

tor that is not likely to be experienced within the civilian sector and might have enough moral weight to sway the decision in favor of euthanasia. Should this request be considered a request for "medical treatment"? In his article, Dr. Swann asserts that "in war, euthanasia is a justifiable method of treatment available to the physician."<sup>31(p546)</sup> If it is morally permissible to euthanize a patient, it may only be a small step to requiring this to be performed as part of normal medical practice and it would be much more difficult to refuse to provide this "treatment" when requested. And then the question arises as to whether a physician has a moral responsibility to provide all treatment a patient requests. This is particularly true on the battlefield when it is impossible to refer the patient to another physician and withdraw from caring for the patient. However, even on the battlefield, the physician continues to be a moral agent, responsible for his actions.

The next question is "Who should be the one who actually performs the mercy killing if that is the choice?" There could be an argument for having the physician removed from the process because society does not expect a physician to be involved with killing patients. However, the physician is already deeply involved and any attempt to separate himself in this situation is just a vain attempt to estab-

lish some moral distancing. The method of euthanasia chosen may be important here as well. Using a scarce resource (morphine or other medication) in the face of expected large numbers of patients in the future may be inappropriate. It may be necessary to use a weapon instead. If this is the case, this may also mitigate against the physician being personally involved.

Another issue revolves around what should be done for patients who are unable to participate in the decision-making process because they are sedated or have shock or head injury causing altered consciousness. They do not lose their "right" to the same merciful dying just because they can no longer express their wishes. One would prefer to provide the same level of comfort and dignity to all patients, not just to those who are fortunate (or unfortunate) enough to be conscious. Therefore, one would think that all patients would receive the same benefit from mercy killing and to deny it to an unconscious patient would be unjust. However, by opening it up to patients who cannot request it, one is clearly not making the decision on the basis of autonomy, but by judging what would be in their "best interests." Deciding in the "best interests" of patients, however, allows the physician to determine just what those best interests are. This is a position of great



power—power that can be abused. It could be inhumane to discuss the real situation with those patients unable to be moved but who can understand the gravity of the situation. It may cause more harm for them to know that they are about to be euthanized. Conversely, even if they had requested that they not be euthanized, it may still be in their best interests to be killed painlessly and not abandoned to the enemy. This is a slippery slope through nonvoluntary euthanasia (where the patient can't request it) into involuntary euthanasia (where the patient can request it but is not consulted or the patient requests that euthanasia not be done).

Looking at autonomy issues from the perspective of the medical team raises the question, "If the decision is to leave some personnel behind, how is that decision made?" This could be an autonomous decision by the members of the healthcare team who could volunteer. Or it could be by the commander ordering certain people to stay (possibly the least crucial to the mission). It could even be by random selection. There is no clearly correct answer.

**Beneficence.** The second principle, that of beneficence, examines what would do the most good for the patient. Using this principle, one would look only at what directly affects the individual patient. Is it ever in his own best interest for the patient to die? Is life such an overriding "good" that nothing that shortens it could ever be in the patient's best interest? If the patient is imminently dying, could the slight hastening of his death be considered in his best interests? This is somewhat beyond most constructions of beneficence in that it is counter-intuitive to suggest that dying is better than living, but in very unusual situations this may well be true. Could psychological suffering by the patient waiting for the enemy to capture him, perhaps torture him, then kill him cause more harm than his dying? It may be that in these extreme situations this harm could occur and a very real suffering may be removed by mercy killing. On the other hand, it may be appropriate to question just how certain it is that the enemy will indeed kill or torture the patients. If one is responding to data based on conjecture and not facts, it would be possible to make a decision that would be at the very least erroneous and at the worst morally suspect. The problem with reacting unquestioningly to "intelligence" (or rumors) is illustrated by the following case/example.

**Case Study 13-3: The Terrified Wounded POW.** During the Persian Gulf War, a 13-year-old Iraqi soldier, who had been told that the Americans would torture and kill any prisoners they captured, suffered a traumatic ampu-

tation of his foot from a land mine. He hid himself among some corpses to attempt to evade capture. He wasn't found for over 24 hours and was pleading to die when he arrived at the 28th Combat Support Hospital. Fortunately, the mess officer spoke Arabic and by talking with this young man ("You are in a hospital. You are being treated kindly, are you not? Has anyone tried to hurt you?") he was able to convince the patient that he was going to be helped and not tortured.

**Comment:** This case demonstrates the need for translators in the hospitals. It also demonstrates the misinformation that can circulate during a war. The American forces had likewise heard tales about how the Iraqis treated captives and in general these were also greatly exaggerated.

**Nonmaleficence.** The third principle, that of nonmaleficence, involves avoiding doing harm to the patient. Is it harmful to kill the patient? One of the earliest statements of the principle of nonmaleficence occurs in the Hippocratic Oath where it states "I will prescribe regimen for the good of my patients according to my ability and my judgment and never do harm to anyone."<sup>38</sup> There are at least two interpretations of how the Hippocratic Oath can be applied in this situation. One would hold that the proscription against killing is supreme. It is clear in the oath that one is swearing to not kill a patient, or to advise a patient to kill himself ("To please no one will I prescribe a deadly drug, nor give advice which may cause his death"<sup>38</sup>). This proscribes any form of physician-assisted dying and is the dominant interpretation of the Oath. The other view would see the withholding of a comfortable death as a cruel travesty of the principle of nonmaleficence in that it is "doing harm" to the patient to allow him to continue suffering (or to face increased suffering when captured) and that this violates the potentially conflicting goal of acting "for the good of my patient," if it is indeed good for him to stop his suffering. It could also be harmful to allow continued suffering without adequate pain control.

**Distributive Justice.** The fourth principle, that of distributive justice, balances competing claims on limited resources. Obviously, if resources were not limited, all patients would receive excellent pain control, would be evacuated prior to any expected enemy contact, and would be provided with excellent medical care. However, in the Swann scenario there are competing demands on the resources available. There are other patients requiring care, patients who will survive if they receive proper care. The expectant patients have already been prioritized into a lower category based on patients already in the system. The situation clearly can only

get worse, with the unit retreating and being required to set up to receive more casualties from an expected escalation in combat. Who has a greater demand on the resources—current patients or potential future patients who may be more likely to survive? This is a classic conflict in duties. A physician treating his patient is usually unwilling to make decisions limiting his patient's care and he does feel a greater obligation to the "patient with a face." However, in this scenario, the duty to the command and to the other soldiers in the supported unit may require the physician to allow these patients to die in the hopes of treating future patients and overall doing more good. Even the possible course of action in which the expectant patients are left behind with some care providers may be problematic due to the decreased ability of the unit providing care to future patients. Any decrement in the unit's ability to provide care for future patients in the new location is a violation of the orders to retreat as well as a violation of the commander's intent in those orders.

In summary, then, the principle-based ethical analysis looks at the overall situation of these patients in terms of autonomy, beneficence, nonmaleficence, and distributive justice. Ultimately, however, it is how the individual physician weighs these components against the facts as they appear at the moment that will assist in making what may be the most difficult decision any physician ever has to make.

I cannot offer a cookbook "solution" to the Swann scenario based on this analysis, or the following two, for that matter, other than to note that the first step in understanding the dynamics of such a decision must come long before the physician is confronted by such a horror. Only by thinking about these issues now, before the need arises, can a physician guard against being overwhelmed by the reality of the task at hand should events, like those in the Swann scenario, occur. To not begin to consider the situation of these patients and their needs in a hypothetical manner when there is no crisis is to risk being unable to quickly evaluate their situation and respond accordingly in an actual crisis. A failure to be prepared for such a situation is, indeed, a failure to provide care for patients when they are most vulnerable.

In beginning this discussion of the ethical analysis of options, I noted that several approaches would be presented. Each of these has bearing on evaluating the scenario and coming to an ethically justifiable resolution of the patients' needs. The utilitarian analysis that follows is the second of these approaches to understanding the difficult decision that the physician faces.

### *Utilitarian Analysis*

One could defend euthanasia in the Swann scenario by the utilitarian maxim, "the greatest good for the greatest number," because by euthanizing the patients who cannot be transported (in this case due to constraints on time and transportation assets) and displacing the entire functioning unit to a new location to receive more casualties, one could maximize the good done for the line units and other, potentially salvageable, casualties. This could even contribute to winning the war and protecting society, an apparent good that presumably would have some moral weight. If any members of the healthcare team were left behind with the casualties, this would diminish the effective strength of the unit, thereby decreasing the good that could be done for the expected casualties in the future. By analogy, using any of the limited medical supplies or medications to provide further care for those left behind would also diminish the good to be done for future casualties. Using this model, the method of euthanasia must be examined. It would be inappropriate to use the limited morphine to assist in the death of the expectant patients, but rather it may be appropriate to use a weapon or other method of ensuring their death. The patients who are not expectant will also present a problem. They can not be transported either and they may need to be left with only limited ammunition and possibly no medical supplies or personnel. This may be such an unusual situation that extreme solutions are necessary. Using this line of reasoning, the utilitarian analysis would seem to require euthanasia of (or simply abandoning) all patients and retreating with an intact unit and supplies.

Conversely, however, should this become policy, the utilitarian analysis might reach the opposite conclusion. This concept was introduced previously in the section on triage. As stated before, the excellent medical care traditionally provided to US troops is listed as a "force multiplier." US soldiers are more willing to expose themselves to danger because they believe that they will receive superb medical care if they are wounded. However, if soldiers perceive that wounded comrades may be killed within this medical system, particularly if the general perception is that the wounded are not requesting this, it could diminish the "will to fight" and possibly affect the outcome of the battle.

Once again, it is clear that the conclusion depends on the interpretation of the facts, an analysis of their probability, and their weighting (or prioritization). There truly is no simple, consistent, "book answer."

Ethical analysis is often unable to identify a single, proper course of action.

### *Military Specific Analysis*

There are several problems with euthanasia on the battlefield, some of which can be generalized from civilian experiences and others that may be unique within the military. In the discussion that follows, several of these problems will be explored using the experience from the Netherlands, which has recently legalized euthanasia. Euthanasia has been practiced openly since at least 1973, and, although technically illegal, it had not been prosecuted since 1981, when guidelines under which physicians could practice assisted suicide and euthanasia and report these deaths as such were established. In 2001, the Dutch parliament legalized this practice.<sup>39</sup>

**Attempts to Control the Euthanasia Process.** In the Netherlands, where there is a growing experience with euthanasia and physician-assisted dying, there are very stringent controls on the actions, including ensuring that the patient is competent, that there is a well-informed and well-considered request, that there is durability of the request over time, that at least two physicians certify that the request is apparently the autonomous decision of the patient, and that all other options have been explored.<sup>40</sup> On the battlefield, however, it will be very difficult to have decisions such as these be durable because this is both a volatile and an emergency situation. If there were enough time to develop durability of the request, it would be likely that transportation assets could be arranged. The urgency of the situation requires that these decisions be made within moments and the effects of the decisions will likely be permanent. It may be possible for consultation with other physicians to occur and presumably this would be necessary, if there were more than one physician in the unit. The physician should also utilize the "chain of command" to benefit from the experience of more senior medical officers. Clearly, there would be "strength in numbers" and a difficult decision would be somewhat easier, if one could talk it out with peers. Unfortunately, if the elements of the decision have not been examined before the situation arises, it will be very difficult to quickly work through all the ramifications as the enemy approaches.

**"Slippery Slope" Issues.** Another concern with following the Netherlands model is that of potential abuses.<sup>41</sup> Various reports show significant underreporting of euthanasia cases in the Nether-

lands and document that many of those reported are actually not in compliance with the standards accepted by the community. Even with these carefully crafted controls, there are many reports of violations of the controls, relaxation of the reporting, and other abuses.<sup>42</sup> For example, the Rummelink report<sup>43</sup> estimated the reporting rate to be 18% and about 2,700 deaths due to euthanasia and assisted suicide. It also documented more than 1,000 cases of patients being euthanized without their consent as well as 8,100 patients being given an overdose of pain medicine, not to relieve pain, but to cause their death. For 4,941 (61% of these patients), this was performed without their consent. There are also reports of infanticide, which are clearly not covered by the legal guidelines. A study similar to the Rummelink Commission's was performed in 1995 with similar results.<sup>41,44</sup> The reporting rate of cases of euthanasia had improved to 41%, but this still means that the majority of cases were not reported.<sup>41</sup> This report also documented an increase in euthanasia and assisted-suicide deaths to 3,600 while involuntary euthanasia cases were down to about 950.<sup>44</sup> Reports continue of depressed patients and infants being euthanized. There are reports of older citizens who are afraid to enter Dutch hospitals for fear of being killed.<sup>45</sup> These data give credence to the slippery slope argument. The battlefield is an arena that is less subject to careful and critical review and thus there is a real concern for controlling euthanasia here.

**Moral Issues.** There is still a problem from a moral viewpoint with active euthanasia for many professionals. It is difficult to envision a healthcare professional allowing a patient to be tortured or killed in a brutal fashion when overrun by the enemy. This, however, does not mandate that the healthcare professional participate in or encourage the practice of euthanasia. The physician is a moral agent and as such has an obligation to uphold his oath. A physician may find it impossible to participate in the killing of his patients. He, as a moral agent, may feel his duty to his patients and the Hippocratic Oath and Oslerian doctrine of "firstly, do no harm" would prevent his involvement in killing or in abandoning his patients. The Judeo-Christian view of the sanctity of life and the Hippocratic tradition of not killing a patient carry the force of 2,500 to 3,000 years of learning, literature, and culture. It is difficult to overlook this powerful determinant of action, and it is not necessarily appropriate to propose this. Deeply held values may indeed be properly held values and there may be excellent reasons to hold to them.

This rather lengthy discussion of the Swann scenario, including the ethical analysis of options and the impact of those options, can only conclude with the observation that should it ever come time to make such a decision, any physician making that decision must have thought long and hard about the issues beforehand. The physician should also seek counsel from more senior military physicians as he develops his decision-making ability for situations such as these. There simply is no “cookbook” approach, or formulaic solution, that draws the line and states that under these circumstances one should euthanize and under those one should not. The fluidity and chaos of the battlefield are such that it is simply not possible to reduce these decisions to simple approaches.

### ***Military Policy vs. Practicality***

Although it may be wrong to propose policy to support battlefield euthanasia, I personally have difficulty in saying that under no circumstances would I

ever request such an action for myself, and therefore I cannot categorically state that I would never even consider this action. I believe that almost any course of action would be preferable to euthanasia and would recommend that fellow physicians examine their convictions as well. It is true that in the rare “supreme emergency” situation, basic moral convictions and moral laws might be violated. However, there is a very real danger in generalizing these situations and making the indication for violating moral laws anything other than such an extreme and supreme emergency that the consequences of not violating the moral law are so unthinkable that they cannot occur. It is possible that the consequences of leaving patients behind to be tortured and killed would constitute such a case and may prescribe euthanasia, but such cases should be extremely rare and the consequences should be carefully examined. The potential negative consequences of adopting euthanasia as official policy are so great that it should remain proscribed and decisions to violate policy should remain extremely rare and subject to review.

## **PARTICIPATION IN INTERROGATION OF PRISONERS OF WAR**

Another issue that may arise on the battlefield is that of physician participation in the interrogation of enemy prisoners of war (EPWs). The most likely scenario would occur when the prisoner is already injured when captured, and he has been presented for medical care. It is also possible that physicians might be asked to use their medical expertise and knowledge to attempt to extract information from an EPW who is not already injured. These courses of action lie on a continuum from ones that are clearly extremely morally objectionable and constitute torture to those that may be morally acceptable. Some cases will be analyzed to attempt to identify some of these issues. It is important to clearly identify factors in the decisions and to carefully weigh the criteria used in deciding.

### **Restrictions Imposed by the Geneva Conventions**

Physician participation in interrogation of EPWs, at least where such participation is able to be classified as torture, is clearly proscribed by Article 12 of the Geneva Conventions concerning wounded and sick in the armed forces: “[they]...shall not be...subjected to torture or to biological experiments....”<sup>3</sup> All wounded EPWs are considered non-combatants and as such are afforded protections in general under that status. They are to be cared for without discrimination and to be triaged equally with US troops as well as those troops of allied nations.

### **“Moral Distancing”**

The medical profession has traditionally attempted to remove itself from being identified with some actions not considered to be within its charter by establishing some “moral distance” between itself and the action. An example is the official position of the American Medical Association (AMA) on physician participation in capital punishment.<sup>47(pp9–12)</sup> In this document, the AMA states that physicians should not be involved in capital punishment. It describes activities that are considered to be participation, including, “but not limited to, the following actions: prescribing or administering tranquilizers and other psychotropic agents and medications that are part of the execution procedure; monitoring vital signs on site or remotely (including monitoring electrocardiograms); attending or observing an execution as a physician; and rendering of technical advice regarding execution.”<sup>47(p10)</sup> Actions considered permissible by the AMA include testifying at a trial, certifying competence to stand trial, “certifying death, provided that the condemned has been declared dead by another person,”<sup>47(p10)</sup> and treating acute suffering in the condemned person awaiting execution. The issue seen here is that the medical profession does not desire to be associated with certain actions and therefore attempts to separate itself from even peripheral involvement in the process. This attempt for separation exists even



though a case could be made for physician participation to prevent cruelty or unnecessary suffering. Andre Guillotine was a physician who was concerned with the suffering of prisoners as they were being executed.<sup>48</sup> He was instrumental in establishing a law requiring execution to be carried out painlessly and efficiently by means of a machine because other less efficient and less rapid methods of execution led to unnecessary suffering of the condemned. His invention therefore would be more merciful. His name became synonymous with execution and his device became a standard method of execution, even being used by the Nazi physicians to obtain the freshest “specimens” for their dissection work by having the guillotine attached to the dissecting table and beginning the dissection just after the victim was killed.<sup>49</sup> (See Chapter 14, *Nazi Medical Ethics: Ordinary Doctors?*, for a further discussion of science and medicine during the Nazi era.) Much of the concern over physician participation in capital punishment or interrogation is that this moral distancing is violated. There is justifiable concern that the active involvement of a physician in interrogation will lead to a “misuse” of medical knowledge and possibly even participation in actual torture.

### **Developing and Participating in Torture**

There is something particularly repugnant in the image of a physician inflicting harm on a helpless person. Unfortunately, however, physicians have been involved in torture—both in developing methods of torture as well as actually participating in the torture process—for generations.<sup>50,51</sup> The possible areas of involvement will be explored and an attempt will be made to answer why physicians would do so and which physicians could be most at risk for this.

Participation in torture can occur at any point along the process but will be divided into development of methods of torture; examinations and treatment prior to torture; presence, examination or treatment during torture; examination or treatment after torture; and concealing facts after torture.

Physicians have assisted in developing technology and perfecting techniques used in torture. An example of the former is the “Tucker Telephone” (Figure 13-5) reportedly designed by a prison doctor, Dr. A.E. Rollins.<sup>52</sup> This device used an electrical generator taken from a ring type telephone and wired in sequence with two dry cell batteries. The wires were attached to the victim’s great toe and penis and the crank was turned, generating a high-voltage electrical charge. The process was repeated several times with the duration of charge being

designed to stop just short of the victim “passing out.”<sup>52</sup> It is clear as well that this method of torture was made more efficient by medical involvement during the use of the device.

Involvement of the medical profession in certifying that prisoners are physically capable of being tortured is the next area of involvement. An example of this reportedly occurred in Israel, in which a physician was required to examine a prisoner and determine if there was any physical limitation to using coercive means (including an isolation cell, restraints, blindfolds, and subjecting him to prolonged standing) in interrogation. This practice has been estimated to involve at least 5,000 Palestinians



**Fig. 13-5.** The “Tucker Telephone,” so named because it was used at the Tucker State Prison Farm in Tucker, Arkansas. This device was used to deliver electrical shock to an individual. It was developed by the prison physician; its use was perfected by Mr. Jim Bruton, the prison superintendent. The device was last used in the 1970s. Reproduced with permission from the Arkansas Department of Correction. Available at <http://www.state.ar.us/doc/images/gal28.jpg>.

a year during the early 1990s. After this practice was exposed, the Israeli Medical Association directed its members not to fill in the fitness form because the physician by doing so becomes an accomplice in torture.<sup>53–55</sup>

The presence of a physician during torture and even using medical means to contribute to the torture is documented in Brazil. Physicians and nurses assisted by reviving victims who had lost consciousness, or even had cardiorespiratory arrests. They also examined patients during the torture sessions and used medications to enhance the effects of torture.<sup>56</sup> Another example is that seen in the involvement of the psychiatric profession in the use of psychoactive drugs in the former Soviet Union. Patients who were determined to be enemies of the state were also diagnosed as being insane. Psychoactive drugs were administered to these patients, partly in order to make them more susceptible to interrogation.<sup>57</sup>

One of the more infamous cases of physician involvement after torture when the victim was brought to him for treatment is that of Steve Biko, who died on 12 September 1977 of head injuries probably received during a torture session. The physicians involved were disciplined for their negligence in adequately diagnosing and treating this patient.<sup>58</sup> There are other examples reported in Chile, Kuwait, Mauritania, and Turkey. There are also reports of medical reports being falsified in order to conceal evidence of torture in these same countries.

Physicians in the military may be particularly susceptible to helping in torture methods. There are several reasons for this, including the predisposition of military members to obey orders, the closed and hierarchical structure within the military, and an identification of physicians with the military unit to which he belongs. This identification with the unit is a very powerful force in determining behavior. The means of developing torturers has been studied by Mika Haritos-Fatouros with findings that are disturbing for those in the military.<sup>59</sup> In Greece, soldiers were selected to become interrogators using guidelines developed during the military junta in power from 1967 to 1974. Potential torturers were selected on the basis of their having political views (as well as coming from a family with those political views) in agreement with those of the junta as well as their strong anti-Communist behavior. They also underwent a second selection process during their training based on their "(a) ability to endure beating of all kinds and exercises to exhaustion; (b) obedience to the demands of au-

thority, even of the most illogical and degrading kind; [and] (c) free selection of the part of the recruit to go through the 3-month hard training of KESA [the Center for Military Police Training]."<sup>59(p1114)</sup> They had been, and continued to be, subjected to initiation rites that included withdrawing all basic human privileges (food, water, and toilet facilities) designed to induce severe stress. This served to destroy any ability to resist as well as promoting a group identity, fostering an "us versus them" mentality, developing a group mentality that all actions done by the group are appropriate, and that group members are totally dependent upon and faithful to each other. There were group nicknames for each other as well as for the trainers and methods of torture. The recruits were subjected to many of the methods of torture they would ultimately use on others. Haritos-Fatouros, a psychologist, identifies four principles of behavior change used by the trainers. These were (1) overlearning (learning to obey without questioning), (2) desensitization (enduring pain themselves and starting to experience it as a part of everyday life), (3) role modeling (older recruits flogged and degraded the newer ones), and (4) reinforcement (both negative and positive). This whole process has chilling similarities to that received by members of US elite forces, including physicians associated with those units, and they appear to be very effective. Military physicians must be extremely careful to avoid this overidentification with their unit and becoming participants in illegal or unethical actions.

### **Battlefield Cases of Physician Participation in Torture**

A continuum of cases will be presented, with possible explanations for participation or nonparticipation for each. These cases are fictional but are based on situations that have occurred on the battlefield.

**Case Study 13-4: Administering Drugs to Assist Interrogation.** A captured enemy soldier is brought to a military physician by troops who are specialists in interrogation, including medical facilitation of the process. They tell the physician that this captured soldier knows vital information that could prevent the destruction of an entire unit. The interrogators want the physician to give this soldier succinylcholine to transiently paralyze his respiratory muscles so that he will remain alert but unable to breathe. The terror this produces should induce him to talk after the effects of the paralyzing agent have worn off. If a single administration isn't effective, the dosage could be repeated as often as necessary.<sup>60</sup>

**Comment:** In this case, the requested medical intervention is clear. The physician is asked to be directly involved in the interrogation. This medical intervention is clearly torture. Succinylcholine is a depolarizing neuromuscular blocker that will cause total paralysis of all skeletal muscles, including those required for breathing. The patient is fully awake and alert, but unable to breathe and would need artificial ventilation to survive. The effects wear off in approximately 5 minutes.

As was discussed earlier, this degree of involvement is clearly proscribed by Article 17 of the Geneva Conventions concerning treatment of prisoners of war<sup>23</sup> and would generally be condemned by the medical profession. Thus, the superficial answer to this request is that this amount of involvement is well beyond the comfort level of most physicians. However, there may be factors that would cause the physician to reach a different decision. The size of the unit in danger, or its importance, may have some moral weight for the physician in deciding about participation. If the unit is a major command, and its being destroyed would cause the war to be lost, this might be considered the supreme emergency addressed earlier. Another possible situation could be one similar to the terrorist attacks on September 11, 2001 on the World Trade Center towers in New York and the Pentagon. If one of the terrorists had been captured before the others were able to execute their missions, it could become more attractive to use all means available to save the lives of thousands of American citizens. But in the absence of a supreme emergency, it is difficult to justify physician participation in this interrogation, both legally and morally.

Another form of chemical interrogation that these specialists might suggest uses Sodium Amytal®, the so-called “truth serum.” This agent is a barbiturate with an intermediate onset and duration of effect that may assist in a hypnotic state or decrease resistance to questioning. This differs slightly from succinylcholine in that this method of extracting information is less terrifying and thus less likely to be considered torture. Sodium Amytal® “just” loosens the EPW’s inhibitions and makes him more likely to talk. (This effect is questionable and its effectiveness is probably much less than is commonly believed, but the ethical issues remain the same.) In this situation, the intervention is possibly less clearly forbidden under Article 17 of the Geneva Conventions, as well as Article 13 (“no prisoner of war may be subjected to...medical or scientific experiments of any kind which are not justified by the medical, dental or hospital treatment of the pris-

oner concerned and carried out in his interest”<sup>23</sup>), but ethical issues persist. One issue in both variations of this case is the use of medical knowledge and expertise in the interrogation. There is no moral distancing here. The physician is deeply involved in using his unique abilities for purposes other than the best medical interests of the EPW. This is at the very least a violation of the EPW’s autonomy and would be very difficult to justify ethically. The extreme emergency issue discussed before could be applied to using Sodium Amytal® in this case. Once again, this would seem to be the only potential justification for such an action. This extreme emergency situation should be invoked very rarely, if at all, because grave violations of human rights could be condoned using this argument. Even with very stringent controls, a true slippery slope would likely occur and it is probably appropriate to forbid any use of these techniques. Department of Defense doctrine prohibits the “use of any form of physical or mental torture or any coercion to compel prisoners to provide information”<sup>61(p4)</sup> and this is appropriate.

Another reason mitigating against the use of medical methods of interrogation is that there is the likelihood that even if these methods were to be employed, the EPW would not give information or that the information given would be false. It is felt that torture is extremely unlikely to give valuable information<sup>62</sup> and therefore the lack of likelihood of success should mitigate against using torture as an interrogation technique. This may remove even the extreme situation justification for the action.

**Case Study 13-5: Withholding or Delaying Treatment to Facilitate Interrogation.** During intense combat, a captured enemy soldier is brought to the military physician. The EPW’s arm is hanging limply by his side, injured by a missile. He appears to be in mild pain. Before the physician can assess the damage he is told that this captured soldier has information that could save the lives of several of the units’ soldiers. The soldiers want to question the EPW immediately because any delay in obtaining information could lead to the loss of the soldiers. They add that if they offer him treatment only on the condition that he gives them this information, this might make the difference between his talking or not talking and thus saving several soldiers’ lives.<sup>60</sup>

**Comment:** The issue in this case is whether it is appropriate to withhold medical care, or to predicate medical care on cooperation by the wounded EPW.

Withholding or delaying of treatment as a tactical approach to gaining information from an interrogation is clearly forbidden under Article 12 of the Geneva Conventions, which notes that individuals



“not willfully (sic) be left without medical assistance and care....Only urgent medical reasons will authorize priority in the order of treatment to be administered.”<sup>3</sup> However, it is important to look at the ethical issues involved here as well and to make a decision based not only on the legality or illegality of the action. In these circumstances, this action would be difficult to justify ethically. The EPW’s autonomy would be clearly violated if needed medical care were to be withheld or predicated upon his disclosing information. Beneficence would dictate appropriate medical care when triage and medical indications are met. Nonmaleficence would also mitigate against refusing care. An argument might be made that the EPW is still acting as a combatant if he refuses to disclose the information, but this is an extremely weak argument and would not hold up under examination to determine if it could be generalized to all situations, which is a basic tenet of ethical decision making. If friendly soldiers should not give this information if they were wounded and captured, this shouldn’t be expected from enemy soldiers either. Geneva Conventions (Article 17) are clear in what information is required from prisoners of war (“bound to give only his surname, first names and rank, date of birth, and army, regimental, personal or serial number, or failing this, equivalent information”<sup>23</sup>), and information critical to the war would clearly be protected. It would also seem to be a form of torture under Article 17 to withhold pain medication or to refuse to treat a person unless he would disclose information (“No...form of coercion, may be inflicted on prisoners of war to secure from them information of any kind whatever. Prisoners of war who refuse to answer may not be threatened, insulted, or exposed to unpleasant or disadvantageous treatment of any kind.”<sup>23</sup>) This is a very short “slippery slope” distance from even more active participation in torture.

**Case Study 13-6: “Looking the Other Way”: Participation by Silence.** The military physician is treating his own and enemy soldiers during intense combat and has heard stories that on occasion captured soldiers who have vital information and will not talk are taken up in helicopters. If they continue to be silent, they are thrown off. The physician is now treating an injured enemy soldier for a superficial flesh wound. The paramedic comes to the physician and states that interrogators waiting in another room were overheard to say that the enemy patient now being treated has vital information. After he is finished treatment, they are considering threatening to take him up in a helicopter and to throw him out if he won’t talk.<sup>63(p453)</sup>

**Comment:** Conflicts are more likely in this case, because there is some moral distance for the physician. The reports are more hearsay than actual fact and it is thus

possible that the interrogators are not really considering such an action. It is also possible that the stories of such actions are exaggerated and that the discussion between the interrogators is just for “show.”

However, if the facts are true, that is, EPWs are being treated in this way, this would be a clear violation of Article 13 of the Geneva Conventions (“prisoners of war must at all times be protected, particularly against acts of violence or intimidation”<sup>23</sup>). If the interrogators in this case are likely to treat the EPW in this manner, then the physician may have an obligation to his patient to attempt to protect him from this action and may attempt to prevent such treatment. Intervening in this way could be justified under the Geneva Conventions treatment for EPWs and as a beneficent action for the patient. A criterion possibly mitigating against this attempt would be that by “blowing the whistle” in this case, future EPWs requiring medical care might not be brought to the medical treatment facility and wounded EPWs may suffer more overall harm than good derived from this current action.

It may also be possible that devoting the necessary time to investigate the allegations, discuss the Geneva Conventions with the interrogators, and follow the appropriate notification procedures may hinder the care of other patients for which the physician is responsible. However, it seems likely that ignoring the possibility that this patient would be tortured would be difficult, if not impossible, for the physician. It would also make the physician a moral accomplice to the torture.

Geneva Conventions require (in Article 129) that signatories search for and prosecute persons who commit grave breaches such as torture of EPWs.<sup>20,23</sup> The physician who does not attempt to stop such actions would be culpable under this Article and could be prosecuted himself.

The easy and glib answer to the question about physician involvement in interrogation (or even torture) of EPWs is that it is contrary to every tenet of medical practice. However, in battle there are many factors that make this easy answer less satisfactory and will certainly cause some moral distress to those making the decision. It may be impossible for the physician to separate his fear, anger, and hatred for the enemy who may have killed or injured friends or colleagues (or at the very least has caused severe destruction and death to friendly troops) and this may influence his decision. Decisions made under these conditions of duress may not be ethically defensible, or even legal. It is important for all physicians to have thought through such possibilities and to have preliminarily determined some basis for deciding.



## CONCLUSION

There are many situations that can lead to stressful decisions, both in peacetime and in war. Caring for patients on a daily basis in peacetime is tremendously challenging with many ethical dilemmas experienced. The cases in this chapter demonstrate how much more challenging it is to care for patients on the battlefield. There are added factors encountered on the battlefield that simply have no civilian counterpart—there usually isn't an "enemy" threatening the civilian healthcare team and civilian patients aren't usually needed immediately for a greater mission. On the battlefield, decisions must be made immediately and often without all the data one would like. One may be stressed, tired, or even wounded at the instant these decisions need to be made. Most likely, one will not have time for deliberation and reflection on these consequences and models. A major way to increase one's ability to make a decision that must be made "in an instant"

but "lived with for the rest of your life" is to approach these issues now and at least have some preliminary internal guides for decision making. The difficulty experienced in making these decisions is perhaps summed up in the following modification of a quote concerning combat surgery often used by Colonel Basil Pruitt,<sup>64</sup> Medical Corps, US Army—"The certainty of [ethical] opinion is directly proportional to the square of the distance from the site of combat." It is my hope that this discussion has stimulated some questions and some discomfort, for then there may be continued growth in ethical decision making for the battlefield.

The following chapters in this volume will continue to explore the issues unique to military medical ethics, examining the situation as it exists currently. They will also attempt to clarify future directions for study and propose an initial military medical ethic.

## REFERENCES

1. US Department of the Army. *Combat Health Support in Stability Operations and Support Operations*. Washington, DC: DA; 27 October 1997. Field Manual 8-42.
2. US Department of the Army. *Medical Evacuation in a Theater of Operations Tactics, Techniques, and Procedures*. Washington, DC: DA; 14 April 2000. Field Manual 8-10-6.
3. Geneva Convention for the Amelioration of the Condition of Wounded, Sick in Armed Forces in the Field. 12 August 1949. In: US Department of the Army. *Treaties Governing Land Warfare*. Washington, DC: DA; 7 December 1956. Department of the Army Pamphlet 27-1.
4. Jeffer EK. Command of military medical units: Grounding the paradigm. *Mil Med*. 1996;161:346–348.
5. US Department of the Army. *Neuropsychiatry and Mental Health*. Washington, DC: DA; 1 September 1984. Army Regulation 40-216.
6. Artiss KL. Human behavior under stress: From combat to social psychiatry. *Mil Med*. 1963;128:1011–1015.
7. Jones FD, Sparacino LR, Wilcox VL, Rothberg JM, eds. *Military Psychiatry: Preparing in Peace for War*. In: *Textbook of Military Medicine*. Washington, DC: Office of The Surgeon General, US Department of the Army and Borden Institute; 1994.
8. Jones FD, Sparacino LR, Wilcox VL, Rothberg JM, Stokes JW, eds. *War Psychiatry*. In: *Textbook of Military Medicine*. Washington, DC: Office of The Surgeon General, US Department of the Army and Borden Institute; 1995.
9. Howe EG, Jones FD. Ethical issues in combat psychiatry. In: Jones FD, Sparacino LR, Wilcox VL, Rothberg JM, eds. *Military Psychiatry: Preparing in Peace for War*. In: *Textbook of Military Medicine*. Washington, DC: Office of The Surgeon General, US Department of the Army and Borden Institute; 1994. 115–132.
10. US Department of the Army. *Planning for Health Service Support*. Washington, DC: DA; 15 February 1985. Field Manual 8-55. Section 1-5.
11. US Department of the Army. *Planning for Health Service Support*. Washington, DC: DA; 9 September 1994. Field Manual 8-55.

12. Beauchamp TL, Childress JF. *Principles of Biomedical Ethics*. 4th ed. New York, Oxford: Oxford University Press; 1994.
13. US Department of the Army. *Medical, Dental, and Veterinary Care*. Washington, DC: DA; 30 July 1999. Army Regulation 40-3.
14. US Department of the Army. *Army Command Policy*. Washington, DC: DA; 15 July 1999. Army Regulation 600-20.
15. United States Code, Title 10. Armed Forces, Subtitle B. Army, Part II. Personnel, Chapter 355. Hospitalization, Section. 3723. Approved 13 November 1998.
16. Moran L. *The Anatomy of Courage: The Classic Study of the Soldier's Struggle Against Fear*. The Art of Command series ed. Garden City Park, New York: Avery Publishing Group; 1987.
17. Code of Conduct for Members of the Armed Forces of the United States. Executive Order 10631 on 17 August 1955 by President Dwight D. Eisenhower; amended through Executive Order 12017 on 3 November 1977 by President Jimmy Carter; and amended again through Executive Order 12633 on 28 March 1988 by President Ronald Reagan. 53 *Federal Register* 10355 (1988).
18. United States Code, Title 5. Government Organization and Employees. Part III, Subpart B, Chapter 33, Subchapter II. Section 3331.
19. 5 USC § 3331.
20. The Joint Staff Officer's Guide 1997. Armed Forces Staff College. Washington, DC. Armed Forces Staff College Publication 1.
21. Operational Law Handbook (2002). International and Operational Law Department. The Judge Advocate General's School. Charlottesville, VA (pages 30, 36, 37, 38).
22. Barondess JA. Medicine against society: Lessons from the Third Reich. *JAMA*. 1996;276(20):1657–1661.
23. Geneva Convention Relative to the Treatment of Prisoners of War. 12 August 1949. In: US Department of the Army. *Treaties Governing Land Warfare*. Washington, DC: DA; 7 December 1956. Army Pamphlet 27-1.
24. Smith AM. The ethos of the military surgeon. *Pharos*. 1993;56(4):11–14.
25. Larrey DJ. *Memoirs of Military Surgery, and Campaigns of the French Armies*. Hall RW, trans. Baltimore, Md: J Cushing; 1814.
26. Merriam-Webster's Collegiate Dictionary. Tenth edition. Springfield, Mass: Merriam-Webster; 1999.
27. Bowen TE, Bellamy RF. *Emergency War Surgery*. Second United States Revision of The Emergency War Surgery NATO Handbook, Washington, DC: US Department of Defense; 1988.
28. Bellamy R. Contrasts in combat casualty care. *Mil Med*. 1985;150:405–410.
29. Winslow G. The concept of triage in modern medicine. In: *Triage and Justice: The Ethics of Rational Life-Saving Medical Resources*. Berkeley: University of California Press; 1982: 1–11.
30. US Department of the Army. *Health Service Support in a Theater of Operations*. Washington, DC: DA; 1 March 1991. Field Manual 8-10.
31. Swann SW. Euthanasia on the battlefield. *Mil Med*. 1987;152:545–549.
32. The NIV Study Bible: New International Version. Grand Rapids: Zondervan Bible Publishers; 1985.
33. Pare A. *The Apologie and Treatise of Ambroise Pare (Containing the Voyages Made Into Divers Places With Many of His Writings Upon Surgery)*. Keynes G, ed. London: Falcon Educational Books; 1951.

34. Wilson R. *A Medico-Literary Causerie. Euthanasia. Practitioner*. 1896;56:131–135. Reprinted in Risner SJ. The dilemma of euthanasia in modern medical history: The English and American experience. In: *The Dilemma of Euthanasia*. New York: Anchor Press; 1975: 27–41.
35. Peterson RKD. Insects, Disease, and Military History: The Napoleonic Campaigns and Historical Perception. Reprinted from *American Entomologist*. 41:147–160. Available at: [http://entomology.unl.edu/history\\_bug/napoleon/plague\\_syria.htm](http://entomology.unl.edu/history_bug/napoleon/plague_syria.htm). Accessed 31 January 2002.
36. Keneally T. *Schindler's List*. New York: Simon & Schuster; 1982.
37. Southby RF. Military health care in the 21st century. *Mil Med*. 1993;158(10):637–640.
38. Edelstein L. In: Temkin O, Temkin CL, eds, Temkin CL, trans. *Ancient Medicine: Selected Papers of Ludwig Edelstein*. Baltimore, Md: Johns Hopkins Press; 1967.
39. Sheldon T. Holland decriminalises voluntary euthanasia. *Br Med J*. 2001;322(7292):947.
40. Gomez, CF. *Regulating Death: Euthanasia and the Case of the Netherlands*. New York: The Free Press; 1991.
41. van der Wal G. Evaluation of the notification procedure for physician-assisted death in the Netherlands. *N Engl J Med*. 1996;335(22):1706–1711.
42. Keown J. On regulating death. *Hastings Cent Rep*. 1992;22(2):39–43.
43. van der Maas PJ. Euthanasia and other medical decisions concerning the end of life. *Lancet*. 1991;338:669–674.
44. van der Maas PJ. Euthanasia, physician-assisted suicide, and other medical practices involving the end of life in the Netherlands, 1990–1995. *N Engl J Med*. 1996;335(22):1699–1705.
45. Fenigsen R. A case against Dutch euthanasia. *Hastings Cent Rep*. 1989;19(1):S22–S30.
46. Walzer M. *Just and Unjust Wars*. New York: Basic Books; 1992.
47. AMA Council on Ethical and Judicial Affairs. *Code of Medical Ethics: Current Opinions With Annotations*. Chicago: American Medical Association; 1994.
48. Weiner DB. The real Doctor Guillotin. *JAMA*. April 3, 1972;220(1):85–89.
49. Proctor R. *Racial Hygiene: Medicine Under the Nazis*. Cambridge, Mass: Harvard University Press; 1988.
50. British Medical Association. Involvement of doctors in torture: Conclusions and recommendations. *Lancet*. 1986;1(8481):628–629.
51. Knoll E, Lundberg GD. Toward the prevention of torture. *JAMA*. June 13, 1986;255(22):3157.
52. Murton T. Prison doctors. In: Visscher MB, ed. *Humanistic Perspectives in Medical Ethics*. Buffalo, NY: Prometheus Books; 1972: 248–249.
53. Fine JE. Torture in Israel and the Occupied Territories. *Lancet*. 1993;342:169.
54. Siegel-Itzkovich J. Israeli doctors banned from role in interrogation. *Br Med J*. 1993;307:(6897):150–151.
55. Mamode N. Torture and war: Medical associations should try to stop torture in Israel. *Br Med J*. 1996;312(7022):57.
56. *Torture in Brazil: A Report of the Archdiocese of Sao Paulo*. New York: Vintage Books; 1986.
57. Sagan LA, Jonsen A. Medical ethics and torture. *N Engl J Med*. 1976;294(26):1427–1430.

58. Nightingale EO, Hannibal K, Geiger HJ, Hartmann L, Lawrence R, Spurlock J. Apartheid medicine: Health and human rights in South Africa. *JAMA*. 1990;264(16):2097–2102.
59. Haritos-Fatouros M. The official torturer: A learning model for obedience to the authority of violence. *J Appl Soc Psychol*. 1998;18(13):1107–1120.
60. Adapted from case for discussion. Ethics course for MS II. USUHS. 5 September 1995.
61. US Departments of the Army, the Navy, the Air Force, and the Marine Corps. *Enemy Prisoners of War, Retained Personnel, Civilian Internees and Other Detainees*. Washington, DC: DA; 1 October 1997. Army Regulation 190-8, OPNAVINST 3461.6, AFJI 31-304, MCO 3461.1.
62. Lieutenant Colonel Kim Marley. Personal Communication, 2002.
63. Gault WB. Some remarks on slaughter. *Am J Psychiatry*. 1971;128(4):450–454.
64. Pruitt BA Jr. Trauma care in war and peace: The Army/AAST synergism: 1992 Fitts Lecture. *J Trauma*. 1993;35(1):78–87.



# Chapter 14

## NAZI MEDICAL ETHICS: ORDINARY DOCTORS?

ROBERT N. PROCTOR, PhD\*

---

### INTRODUCTION

#### SETTING THE STAGE: PHYSICIANS AND THE RACIAL HYGIENE MOVEMENT

- Emergence of Social Darwinism
- Increasing Anti-Semitism and Evolving Biological Determinism
- Formation of the National Socialist Physicians' League
- Racial Hygiene in the German Medical Community

#### NAZI IMPLEMENTATION OF MEDICAL IDEOLOGY: A CHRONOLOGY

- Controlling Reproduction: The Sterilization Law (1933)
- Controlling Racial "Pollution": The Nuremberg Laws (1935)
- Eliminating "Defectives": The Euthanasia Operation (1939–1945)
- Instituting Mass Murder: The Genocide Program (1941)

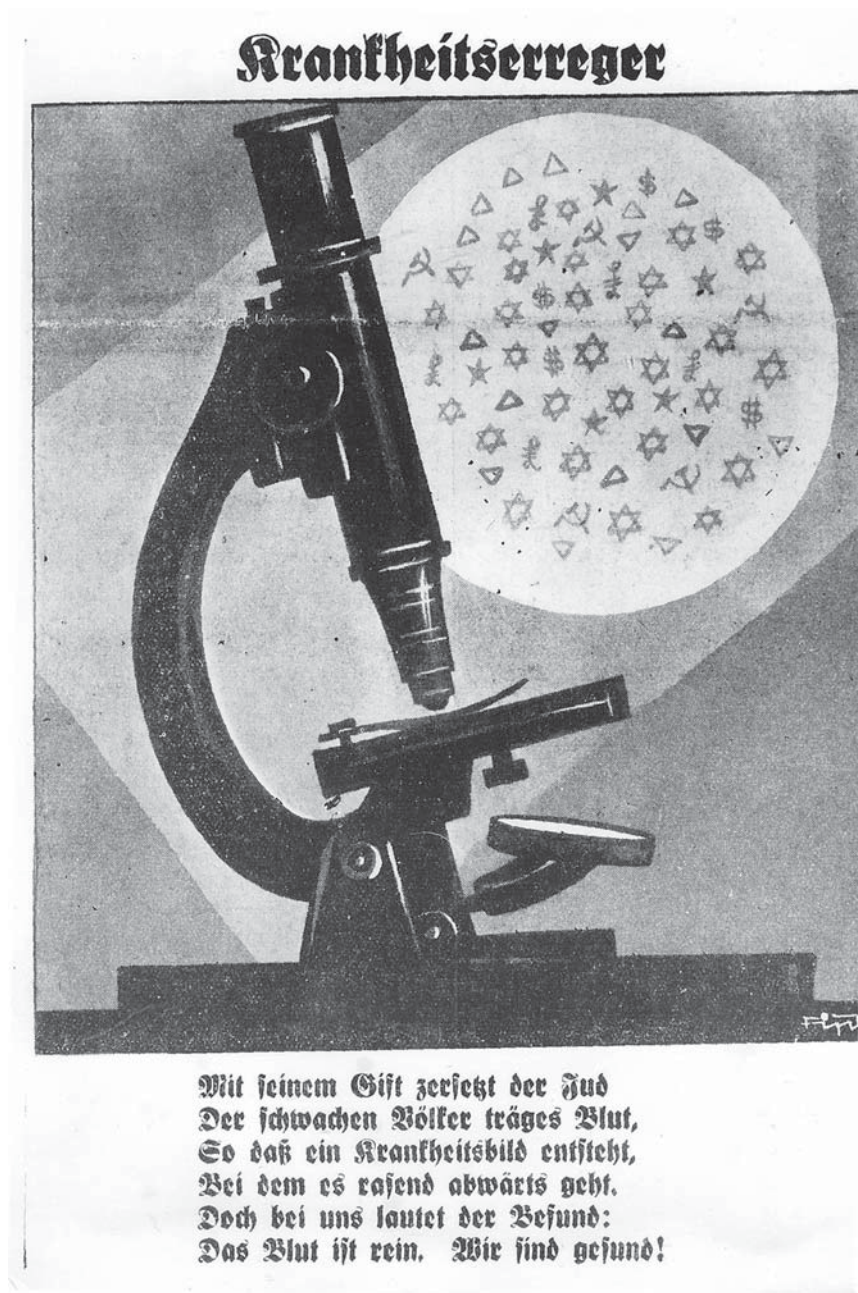
### NAZI MEDICAL EXPERIMENTS

### QUESTIONS AND INTERPRETATIONS

### CONCLUSION

### ATTACHMENTS: SEMINAL EVENTS IN NAZI MEDICAL ETHICS

\*Currently, Helen and Walter Ferree Professor of the History of Science and Co-Director, Science, Medicine, and Technology in Culture, Pennsylvania State University, University Park, Pennsylvania 16802; formerly, Fulbright Senior Fellow and Visiting Scholar, Max-Planck-Institut für Wissenschaftsgeschichte, Berlin; Senior Scholar-in-Residence, United States Holocaust Research Institute, Holocaust Memorial Museum, Washington, DC



*Infectious Germs.* Among the symbols under the microscope are those for Jews (the Star of David), communists (the hammer and sickle), the British (the pound sterling), and the Americans (the dollar). The poem at the bottom reads:

With his poison, the Jew destroys  
The sluggish blood of weaker peoples,  
So that a diagnosis arises,  
Of swift degeneration.  
With us, however, the case is different:  
The blood is pure, we are healthy!

From *Der Stürmer*, 15 April 1943:1.

## INTRODUCTION

*"Only a good person can be a good physician."<sup>1</sup>*

—Rudolf Ramm, Germany's  
foremost medical ethicist, 1942

Few aspects of recent medical history are as troubling as medicine under National Socialism. Part of this has to do with the severity of the ethical breach: More than 1,000 people were killed in the course of human experiments performed at German concentration camps; between 350,000 and 400,000 were sterilized as "genetic defectives"; another 200,000 were exterminated in the "euthanasia" operation; and an estimated 6,000,000 Jews perished in the "Final Solution," along with many tens of thousands of Sinti and Roma. Part of the shocking nature of these events, however, is the willingness with which medical practitioners undertook these deeds. Nazi medicine represents a low-water mark in medical ethics, and, indeed, much of contemporary medical ethics can be seen as a response to the abuses of this era. To understand how German medicine in the 1930s and 1940s came to epitomize medical evil, it is necessary to review what it was like prior to 1933, when Hitler took power.

In the 1920s and early 1930s, German medicine was the most advanced of any country in the world. More than half of all Nobel prizes had gone to German-speaking scientists, and many of the most advanced medical tools and concepts had been born in Germany. German scientists had pioneered pathology, epidemiology, and many aspects of preventive medicine; Germans were world leaders in cancer research, toxicology, surgery, and social medicine.

This was also an era of great social unrest in Germany. Germany had lost the First World War, and the Allied Powers had required the defeated nation to pay hundreds of billions of Reichsmarks in reparations. Communists had established a short-lived Munich Soviet Republic in 1918, and between 1922 and 1924, Germany suffered the worst inflation any nation has even known—until a loaf of bread cost a wheelbarrow full of cash, and currency was cheaper than toilet paper. The economy recovered somewhat in the mid 1920s, but the depression (1930–1933) threw six million men and women out of work. Fringe right-wing movements gained in strength throughout this time, as people were desperate to find scapegoats for the war, inflation, and joblessness. Jews were blamed, along with overgreedy capitalists, foreign opportunists, French and English imperialists, and left-wing communist or socialist radicals.

Doctors were not unaffected by these movements. German medicine became politicized and polarized in the years leading up to Nazi seizure of power in 1933. Some radical doctors began calling for eliminating Jews from German medicine and an end to state-financed medical care for the poor. Race and disability became increasing topics of conversation, with many doctors calling for the sterilization of the mentally ill or physically handicapped—seen as burdens on the German *Volk*.

The horror of Nazi medicine must be seen as more than merely science or medicine run amok; we also have to explore what fueled and shaped the various programs that delivered these medical depredations. Science-based medicine played an important role in creating, justifying, and administering Nazi atrocities, but they must also be seen in a larger historical context. Doctors played a vital role in the regime, but they could not have done these deeds without much broader cultural support, and not without ideologic rationales that rendered them "necessary evils."

It is also necessary to consider what Nazi medicine was not, in order to better understand what it was. One of the most common misunderstandings concerning the nature and extent of Nazi medical crimes holds that the Nazis simply destroyed science. In his opening statement at the Nuremberg "Doctor's Trial" that began in 1946 and ended in 1947, US chief prosecutor Telford Taylor claimed that the Nazi doctors had turned Germany "into an infernal combination of a lunatic asylum and a charnel house...[where] neither science, nor industry, nor the arts could flourish."<sup>2(p69)</sup>

The problem with this "science vs. fascism" thesis is that it ignores the eagerness with which many scientists greeted the regime—and the many areas in which science actually flourished under the Nazis (see Exhibit 14-1). Although it may be more comforting to believe that scientists and doctors were forced into these heinous behaviors, or were on the radical fringe of their professions, the truth is that leading institutions of the German medical profession threw their support to the Nazi cause. The persistent myth of the "reluctant physician" therefore flies in the face of the best available historical scholarship on the era; it also keeps us from understanding what actually happened in Nazi Germany, and what must be learned from it.

The story of science in general, and medicine in particular, under German fascism must therefore be more than a narrative of suppression and survival;

## EXHIBIT 14-1

### NAZI SCIENTIFIC ACCOMPLISHMENTS

The V-2 engine is a prime example of the prolific scientific accomplishments during the Nazi regime, but there are numerous other examples. German scientists and engineers in the Nazi-era pioneered television,<sup>1,2</sup> jet-propelled aircraft (including the ejection seat),<sup>3</sup> guided missiles,<sup>3</sup> electronic computers ("Z Series" computers used the programming language *Plankalkül*),<sup>4</sup> the electron microscope,<sup>5</sup> atomic fission,<sup>6</sup> new data processing technologies,<sup>7,8</sup> new pesticides,<sup>9</sup> and the world's first industrial murder factories (including the use of gas chambers disguised as showers). The first magnetic tape recording was of a speech by Hitler,<sup>10</sup> the V-2 emerged from a plan for inter-continental ballistics designed to be able to reach Manhattan,<sup>3</sup> and the nerve gases Sarin and Tabun were Nazi inventions.<sup>11</sup>

Sources: (1) Burns RW. *Television: An International History of the Formative Years*. London: The Institution of Electrical Engineers; 1999. (2) Murray BA, Wickham CJ, eds. *Framing the Past: The Historiography of German Cinema and Television*. Carbondale: Southern Illinois University Press; 1992. (3) Neufeld MJ. *The Rocket and the Reich: Peenemünde and the Coming of the Ballistic Missile Era*. New York: Free Press; 1995. (4) Zuse K. *The Computer, My Life*. Berlin: Springer-Verlag; 1993. (5) Ruska E. Autobiography. In: *Nobel Lectures, Physics 1981–1990*. Available at: <http://www.nobel.se/physics/laureates/1986/ruska-autobio.html>. Accessed 3 December 2001. (6) Walker M. *Nazi Science: Myth, Truth, and the German Atomic Bomb*. New York: Plenum; 1995. (7) Luecke D, Milton S. Locating the victim: An overview of census taking, tabulation technology, and persecution in Nazi Germany. *IEEE Annals of the History of Computing*. 1994;16:25–39. (8) Black E. *IBM and the Holocaust: The Strategic Alliance Between Nazi Germany and America's Most Powerful Corporation*. New York: Crown; 2001. (9) Dubois JE Jr. *The Devil's Chemists*. Boston: Beacon; 1952. As cited in: Proctor RN. *Nazi War on Cancer*. Princeton: Princeton University Press; 1999: 104–105, 118. (10) Digital America 2001. *US Consumer Electronics Industry Today*. Available at <http://www.ce.org/digitalamerica/history/history8.asp>. Accessed 3 December 2001. (11) Borkin J. *The Crime and Punishment of IG Farben*. New York: Free Press; 1978.

it must also tell how and why Nazi ideology promoted certain areas of inquiry and action. The Nazi phenomenon cannot simply be dismissed by saying the science was "flawed" or doctors were "politicized"; nor can it even be said that the Nazis simply abandoned ethics. There is an ethic of Nazi medical practice—often explicit, sometimes not; often cruel, but sometimes not. This is important to understand. If the Nazi phenomenon is demonized as absolutely alien and otherworldly, with no connection to the present, our ability to understand the origins of these medical crimes is forfeited. Only by understanding how some physicians came to abuse and even murder their patients can one understand the potential within any person for such an act. The disconcerting question, after all, is how physicians, convinced they were doing good, came to commit crimes that today are regarded as the embodiment of evil. Why did the Nazi movement appeal to doctors? How did Nazi ideals inform the practice of medicine, and how did medical concepts and practices penetrate Nazi politico-medical practice? What kind of resistance was there, and why was it "too little, too late"? What more could have been done to stop the translation of Nazi ethical ideals into German medical practice? This chapter will attempt to answer these questions.

The well-established fact of medical complicity in Nazi crime<sup>3–8</sup> is not one that fits well with traditional views of how scientists or other professionals establish and maintain "norms" of conduct. It has often been argued over the years that science is either inherently democratic (that is, it depends upon and contributes to democratic political formations), or, at worst, apolitical. The implication is that science grows only on the soil of democracy, and that social forces hostile to democracy will be hostile to science. Science is supposed to be "objective" and "value-free." In such a view, the possibility that science (or medicine) might actively contribute to or co-organize fascist movements is summarily dismissed. Similar prejudices lead us to think of doctors as incapable of mass murder. Isn't the whole purpose of medicine to heal, and to "do no harm"? Could physicians really have allowed themselves to be so used by the state, to become so infected with racist ideology that healers became killers?

In the remaining sections of this chapter, I will examine how doctors in Nazi Germany moved to destroy an ever increasingly broad array of patients judged burdensome to the state or racially inferior. Throughout this discussion, I want to emphasize three of the most disturbing features of Nazi medical crime. First, there is the fact that many physi-



cians were eager to join the party and (eventually) to participate in the killing of “lives not worth living.” Second, there is the fact that Nazism informed the practice of science—sometimes even “good science” (science that even today must be regarded as progressive and unimpeachable). And third, Na-

zism itself was, if not a “medical movement,” then at least a movement that utilized a great deal of medical rhetoric, while also exploiting medical talents, medical tools, medical status, and medical intimacy, including the trust implicit in the traditional doctor–patient bond.

## SETTING THE STAGE: PHYSICIANS AND THE RACIAL HYGIENE MOVEMENT

Science has long held a privileged status in European culture. Science helps explain why things are as they are (or are not), including human behavior or worth or capacity to perform. Science can be many things, but it has also often been used as a source of legitimation or apologetics—to prove what people already believe to be true. Science is a powerful tool; people therefore look to it for solutions to social problems.

### Emergence of Social Darwinism

Evolutionary theory, for example, one of the greatest triumphs of the human mind, comparable to the Copernican revolution, has had some less than savory consequences. Darwin’s *Origin of Species*, published in 1859, allowed scholars to apply the principal of natural selection to the science and ethics of human society, replacing more egalitarian views of human nature. In America, social Darwinists saw in evolution by natural selection a kind of scientific guarantee of moral progress, a process by which those who survive are those who are most fit. German social Darwinists tended to have less confidence in the progressive outcome of evolution, and sought to increase social progress by limiting the breeding of the “unfit.”

At the end of the 19th century, German social Darwinists, fearing a general “degeneration” of the human race, set about to establish a new kind of hygiene—a racial hygiene (*Rassenhygiene*)—that would turn the attention of physicians away from the individual or the environment and towards the human genetic constitution. In the eyes of its founders (Alfred Ploetz and Wilhelm Schallmayer), racial hygiene was supposed to complement personal and social hygiene. Racial hygiene would provide long-run, preventive medicine for the “German germ plasm” by combatting the disproportionate breeding of “inferiors,” the celibacy of the upper classes, and the threat posed by feminists to the reproductive performance of the family (Figure 14-1).

Racial hygiene was popular in many different parts of the world, and Germany’s early movement showed little of the violence the Nazis would later

give it. As in many other countries, the early German movement was primarily nationalistic and meritocratic, more than it was anti-Semitic or Nordic supremacist. Eugenists worried more about the indiscriminate use of birth control (by the “fit”)

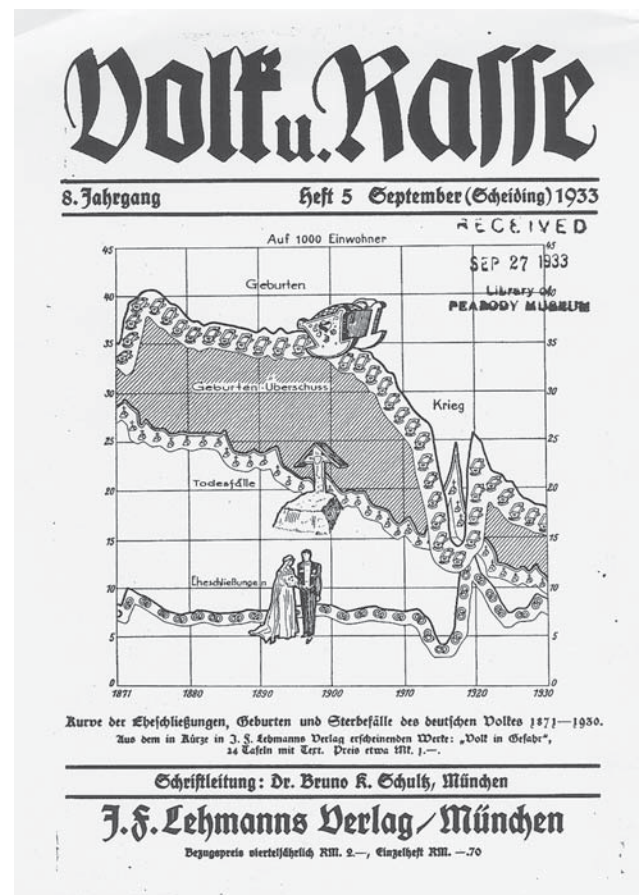


Fig. 14-1. “Trends in Marriages, Births, and Deaths for the German People, 1871–1930,” from a leading racial hygiene journal, depicts the falling German birth rate (*Geburten*) and the effect of World War I on births and fatalities (*Todesfälle*). The bottom line shows the trend in marriages (*Eheschließungen*). Racial hygienists used such charts to argue that healthy Germans were not reproducing fast enough to maintain a growing population. From the cover of *Volk und Rasse*, 8(1933).

and the provision of inexpensive medical care (to the “unfit”) than about the breeding of superior with inferior races, or many of the other themes we associate with the Nazis. Anti-Semitism actually played a relatively minor role in early racial hygiene. In fact, for Alfred Ploetz, father of the German movement, Jews were to be classed along with the Nordics as one of the superior, “cultured” races of the world.<sup>9</sup>

### Increasing Anti-Semitism and Evolving Biological Determinism

By the mid-1920s, however, anti-Semitism was becoming a more common theme in the *Gesellschaft für Rassenhygiene*, as the more militant, right-wing, faction of racial hygiene began to merge with the young National Socialist Party. A lot of people were desperate and disillusioned after the war; many Germans thought it unfair that England and France had captured vast colonial territories throughout the world, and people looked to Hitler as a “strong man”

who would restore German dignity and military strength. Racial hygienists also liked the attention Hitler and his men were giving to race. Institutional links began to grow between Hitler and the racial hygiene movement. In 1918, J.F. Lehmann, a conservative anti-Semitic publisher, took over publication of the *Archiv für Rassen- und Gesellschaftsbiologie* (the main racial hygiene journal) and Nazi ideologues began to incorporate biologicistic rhetoric into their propaganda. Fritz Lenz, Germany’s first Professor of Racial Hygiene (appointed in 1923 to the University of Munich) praised Hitler in 1930 as “the first politician...who has taken racial hygiene as a serious element of state policy.”<sup>7(p47,n6)</sup> Hitler was also beginning to be lauded as the “great doctor of the German people.”<sup>7(p64)</sup> Hitler once called his revolution “the final step in the overcoming of historicism and the recognition of purely biological values.”<sup>7(p64)</sup>

It is instructive to track the rise of National Socialism against changes in medical views, as the timeline in Attachment 14-1 to the chapter demonstrates. This linkage between medicine and politics



**Fig. 14-2.** “Selection” (a) (Auslese) and “Counterselection” (b) (Gegenauslese), Darwinian metaphors in the service of murder. From *SS Leittheft* 3, 5 (1939): 18, 19.



is also seen clearly in biological imagery, which was important in Nazi literature in several different ways. SS (*Schutzstaffel* ["protection echelon"]) journals spoke of the need for "selection" to replace "counterselection," borrowing their language directly from the social Darwinian racial hygienists (Figure 14-2). Nazi leaders commonly referred to National Socialism as "applied biology"; indeed it was Fritz Lenz who originally coined this phrase<sup>10(p417)</sup> in the 1931 edition of his widely read textbook on human genetics. The Nazi state was itself supposed to be organic (*biologisch*) in two separate senses: in its suppression of dissent (the organic body does not tolerate one part battling with another), and in its emphasis upon "natural" modes of living (the healthy, organic body does not tolerate alien bodily intruders, such as tobacco or toxic pollutants). Natural modes of living and nature were highly prized by Nazi philosophers. Women were not supposed to smoke or wear makeup, for example, and legis-

lation was enacted early in the Nazi period to protect endangered species. Hitler did not smoke or drink, nor would he allow anyone to do so in his presence. Antitobacco activists pointed out that the two other fascist leaders of Europe, Franco and Mussolini, were also nonsmokers, and that all three Allied leaders smoked (Churchill smoked cigars; Roosevelt and Stalin enjoyed cigarettes).<sup>11</sup>

### Formation of the National Socialist Physicians' League

Given the importance of biology in Nazi discourse, it is not surprising that doctors were among those most strongly attracted to the movement. It is frightening, however, to see how early and eagerly they joined. In 1929, a number of physicians formed the National Socialist Physicians' League to coordinate Nazi medical policy and to purify the German medical community by expunging "Jewish Bolshevism" (fed by the perception that most Jews were also communists). The organization was an immediate success, with nearly 3,000 doctors, representing 6% of the entire profession, joining the League by January 1933<sup>7(p65,n10)</sup>—that is, before the rise of Hitler to power (Figure 14-3). Doctors in fact joined the Nazi Party earlier and in greater numbers than any other professional group. By 1942, more than 38,000 doctors had joined the Party, representing about half of all doctors in the country.<sup>7(p66,n14)</sup> In 1937 doctors were represented in the SS seven times more often than was average for the employed male population<sup>7(p66,n14)</sup> and doctors had assumed leading positions in German government and universities.<sup>7</sup>

Despite these facts, the myth of the reluctant German physician in the service of the Nazi state still lingers. One often hears that National Socialists *distorted* science, that doctors perhaps cooperated more with the regime than they should have, but that by 1933 (when Hitler came to power) it was too late and scientists had no alternative but to cooperate or flee. There is certainly some truth in this, but it misses the more important point that medical scientists were the ones who invented racial hygiene in the first place.

### Racial Hygiene in the German Medical Community

Most of the approximately 20 university institutes for racial hygiene were established at German universities before the Nazi rise to power, and by 1932 racial hygiene had become an orthodox fixture in the German medical community. The major expansion in this discipline occurred before Hitler



**Fig. 14-3.** *Ziel und Weg* (Goal and Path), official journal of the National Socialist Physicians' League. The headline in the spring 1933 issue reads: "We Take Command!"

was elected, most of the 15-odd journals of racial hygiene, for example, were established long before the rise of National Socialism.

Racial hygiene was also recognized as the primary research goal of two separate institutes of the prestigious Kaiser Wilhelm Gesellschaft: the Kaiser Wilhelm Institute for Anthropology in Berlin (1927–1945), directed by the anthropologist Eugen Fischer, and the Kaiser Wilhelm Institute for Genealogy in Munich (1919–1945), directed by the psychiatrist Ernst Rüdin. Both institutes helped train SS physicians; both helped construct the “genetic registries” later used to roundup and deport (for execution) Jews and Gypsies. Twin studies—that is, of identical twins raised apart—were among the leading preoccupations of these and other racial institutes, the purpose being to sort out the relative influence of nature and nurture in human character and institutions. Racial hygienists were convinced that many human behaviors are at root genetic—that it is genes that ultimately determine whether we are criminal or law abiding, sick or healthy, stupid or intelligent. The Nazi government recognized the political value of such theories: In 1939, Interior Minister Wilhelm Frick ordered all twins born in the Reich to be registered with Public Health Offices for purposes of genetic research.<sup>12</sup>

Twin studies were seen as providing the scientific foundation for the racial hygiene movement, and therefore Nazi ideology and policy more generally.

## NAZI IMPLEMENTATION OF MEDICAL IDEOLOGY: THE CHRONOLOGY

What were the practical results of Nazi racial hygiene? Four main programs—(1) the Sterilization Law (1933), (2) the Nuremberg Laws (1935), (3) the euthanasia operation (1939), and (4) the Final Solution (1941–1945)—formed the heart of the Nazi program of “racial cleansing.” I will deal with each in turn.

### Controlling Reproduction: The Sterilization Law (1933)

On 14 July 1933, the Nazi government passed the Law for the Prevention of Genetically Diseased Offspring, or “Sterilization Law” (Attachment 14-2) allowing the forcible sterilization of anyone suffering from “genetically-determined” illnesses such as feeble-mindedness, schizophrenia, manic-depressive disorder, epilepsy, Huntington’s disease, genetic blindness or deafness, or chronic alcoholism. The measure was drawn up after a series of meetings by several of Germany’s leading racial hygienists, including Lenz, Ploetz, Rüdin, SS chief Heinrich

The evolution of twin research also serves as a forceful example of the deterioration of medical ethics. The largest institution in the Reich devoted to the study of twins was Otmar von Verschuer’s Institute for Racial Hygiene in Frankfurt. This institute had 67 rooms and several laboratories, and was where Josef Mengele in the late 1930s did his postdoctoral research on the genetics of cleft palate, working under Verschuer. Mengele was subsequently appointed an assistant to Verschuer at the Kaiser Wilhelm Institute for Anthropology in Berlin, and provided “experimental materials” to the Institute (including eyes, blood, and other body parts) from Auschwitz (up through the ending days of the war) as part of a study on the racial specificity of blood types funded by the *Deutsche Forschungsgemeinschaft* (German Research Council). This particular line of research was a follow-on to the active study of blood groups in the 1930s. When Otto Reche founded the German Society for Blood Group Research in 1926, one of the reasons he gave for this was to see if he could find a reliable means of distinguishing Aryans from Jews in the test tube.

Physicians, in other words, were not simply “pawns” in the hands of Nazi officials—not pawns, but pioneers. But without a strong state to back them, racial hygiene was relatively impotent. It was not until 1933 that the programs of the pre-Nazi era gained the support of officials willing to move aggressively in this area.

Himmler, Reich Physicians’ Fuehrer Gerhard Wagner, and the industrialist Fritz Thyssen.

### Minimizing Reproduction of “Defectives”

In 1934, the implementation of the sterilization program began with the establishment of 181 Genetic Health Courts and “Appellate Genetic Health Courts” throughout Germany to adjudicate the Sterilization Law. The courts were usually attached to local civil courts and presided over by a lawyer and two doctors, one of whom had to be an expert on genetic pathology. Doctors throughout the Reich were required to register every case of genetic illness known to them and could be fined 150 RM—a hefty sum—for failing to register any such “defective.” Physicians were also required to undergo training in “genetic pathology” at one of the numerous racial institutes established throughout the country. The German Medical Association founded a journal, *Der Erbarzt* (The Genetic Doctor), to help



physicians determine who should be sterilized; the new journal included a regular column where physicians could write to ask whether a patient with, for instance, a club foot or retinoblastoma or a hearing disorder should be sterilized.

Estimates of the total number of people sterilized in Germany range from 350,000 to 400,000—or roughly 50,000 per year.<sup>7(p108,n49,n50)</sup> Compared with the demands of some racial hygienists this was relatively modest. Lenz, for example, had argued that 10% to 15% of the entire population was defective and ought to be sterilized.<sup>7(p99,n15)</sup> In light of such proposals, efforts were made to develop rapid sterilization techniques, especially for women, for whom the standard tubal ligature could involve a hospital stay of more than a week (and involved a surprisingly high mortality rate, approaching 1%). The most important of these techniques was a non-surgical procedure involving scarification of the fallopian tubes using supercooled carbon dioxide. In 1943, the gynecologist Carl Clauberg announced to Himmler that, using such a technique and with

a staff of 10 men, he could sterilize as many as 1,000 women per day.<sup>13</sup> Experiments were also done on sterilization by X-rays, a technique also used in the United States at this time.

It was the United States that provided the most important model for Germany's sterilization legislation. Indiana in 1907 passed the first law permitting forcible sterilization, though at least 465 prisoners had already been sterilized in other parts of the country.<sup>7(p97,n8)</sup> By the late 1920s approximately 15,000 individuals had been sterilized in the United States—most while incarcerated in prisons or homes for the mentally ill.<sup>7(p97,n8)</sup> German racial hygienists throughout the Weimar period expressed their envy of American achievements in this area, warning that unless the Germans made progress in this field, the United States would become the world's racial leader<sup>7(pp97–101)</sup> (Figure 14-4). After the war, the Nazi sterilization program was never considered to have been a criminal program (although the Nazi sterilization experiments were viewed as criminal), which is one reason that it was not prosecuted during the Nuremberg Trials. (Another reason was that the tribunal looked only at deeds done to non-Germans as being within the purview of the court.) At any rate, it would have been difficult to do so, given the sterilization laws then in force in many other countries.

#### Encouraging Reproduction of Desired Traits

Racial domination and the elimination of the weak and unproductive were not the only forms of oppression in the Nazi regime. One aspect of Nazi ideology that has come under increasing scrutiny in recent years is the *machismo* nature of that ideology. Nazi medical philosophers were quite explicit about their feelings on this matter. A 1933 editorial by the National Socialists Physicians' League, for example, announced that the National Socialist movement was "the most *masculine* [emphasis added] movement"<sup>7(pp119–120,n7)</sup> to have appeared in centuries.

One of the initial thrusts of Nazi policy was to take women out of the workplace and return them to the home, where they were to have as many children as possible. Fritz Lenz, for example, had argued that any woman with fewer than 15 babies by menopause should be considered "pathological." The government was more modest, pushing what it called the "four-child family" ideal. On 16 December 1938, Hitler announced the establishment of the "Honor Cross of German Motherhood," modeled on the Iron Cross and awarded in bronze for



**Fig. 14-4.** "Only Genetically Healthy Offspring Ensure the Strength of the People." Top inside [the box] caption reads: "We Do Not Stand Alone." The woman holds a baby and the man supports a shield inscribed with Germany's 1933 Law for the Protection of Genetically Diseased Offspring (Sterilization Law). The couple stands in front of a map of Germany, surrounded by flags of the nations that have enacted sterilization legislation. From *Neues Volk*, 1 March 1936:37.

four children, silver for six, and gold for eight (Figure 14-5). After 1938 all public officials (including professors) were required to marry or else resign; medical journals published the names of unmarried or childless colleagues to shame them. At the same time that forced sterilization and abortion were instituted for individuals of inferior genetic stock, sterilization and abortion for “healthy” German women were declared illegal and punishable as a “crime against the German body.”<sup>7(p122,n20)</sup> As one might imagine, Jews and others deemed racially suspect were exempted from these restrictions. On 10 November 1938, a Lüneberg court legalized abortion for Jews. A decree of 23 June 1943 allowed abortions for Polish workers, but only if they were not judged “racially valuable” (ie, healthy, blue-eyed blonds).<sup>14</sup>

Nazi population policy, directed toward what Interior Minister Frick called “the solution to the woman question,” was remarkably successful: The birth rate jumped from 14.7 / 1000 in 1933 to 18 / 1000 in 1934,<sup>7(p126,n44)</sup> representing what demographer Friedrich Burgdörfer called an unprecedented

achievement in world population history and a victory in the “war of births.”<sup>7(p126,n44)</sup> One other item should be noted: the shift from physicians’ predominantly handling the delivery of babies to midwives handling this task. Midwifery was viewed as a healthier and “more natural” form of giving birth.

### Controlling Racial “Pollution”: The Nuremberg Laws (1935)

In the fall of 1935 Hitler signed into law the so-called “Nuremberg Laws”—excluding Jews from most of the rights of citizenship and preventing marriage or sexual relations between Jews and non-Jews. As part of this, the “Marital Health Law” required couples to submit to medical examination before marriage to see if “racial pollution” might be involved. The laws are summarized in Attachment 14-3.

The Nuremberg Laws were considered public health measures, and were administered primarily by physicians. In early 1936, for example, when the Marital Health Law went into effect, responsibility for administering the laws fell to marital counseling centers attached to local public health offices. The Nuremberg Laws, along with the Sterilization Law, were two of the primary reasons expenditures and personnel for public health actually expanded under the Nazis.

I should also note that, as with the Sterilization Law, here, too, Germans learned from the Americans. Nazi physicians on more than one occasion argued that German racial policies were relatively “liberal” compared with how blacks were treated in the United States. Evidence for this was usually taken from the fact that in several southern states, a person with only 1 / 32 African ancestry was legally black (the so-called “drop of blood” rule), whereas if someone were 1 / 8 Jewish in Germany (and for many purposes, 1 / 4 Jewish), that person was legally “Aryan” (a one-quarter Jew, for example, could still marry a full-blooded German). Nazi physicians spent a great deal of time discussing American miscegenation legislation; German medical journals reproduced charts showing the states in which blacks could or could not marry whites, could or could not vote, and so forth (Figure 14-6).<sup>15</sup>

Sadly, there is yet another area where Nazi physicians were able to draw support from their American colleagues. In 1939, Germany’s leading racial hygiene journal reported the refusal of the American Medical Association to admit African-American physicians to its membership. Approximately 5,000 black physicians had petitioned to join the all-white American body, but were turned down. Ger-



**Fig. 14-5.** Honor Cross of German Motherhood, awarded in bronze for four children, silver for six, and gold for eight. Hundreds of thousands of these crosses were awarded in the 12 years of Nazi rule.



man physicians only one year before, in 1938, had barred Jews from practicing medicine (except on other Jews); Nazi racial theorists were thereby able to argue that Germany was “not alone” in its efforts to preserve racial purity.<sup>16</sup>

### Eliminating “Defectives”: The Euthanasia Operation (1939–1945)

In early October 1939, Hitler issued orders that certain doctors be commissioned to grant a “mercy death” (*Gnadentod*) to patients judged incurably sick by medical examination. By August 1941, when the first phase of the so-called “euthanasia” operation was brought to a close, more than 70,000 patients

from German mental hospitals had been killed in an operation that provided the stage rehearsal for the subsequent destruction of the Jews, Communists, Gypsies, Slavs, and prisoners of war.

### “Lives Not Worth Living”

The idea of the destruction of “lives not worth living” did not begin with the Nazis, but had been discussed in legal and medical literature since the end of World War I—and not just in Germany. In 1935, for example, the French-American Nobel Prize winner Alexis Carrel (a pioneer of tissue culture and the iron lung) suggested in his book, *Man the Unknown*, that the criminal and mentally ill should be “humanely and economically disposed of in small euthanasia institutions supplied with proper gases.” Six years later, as German psychiatrists were sending the last of their patients into the gas chambers, an article appeared in the *Journal of the American Psychiatric Association* calling for the killing of retarded children, “nature’s mistakes.”<sup>17</sup> Journals as diverse as *American Scholar* and the *Journal of the American Institute of Homeopathy* debated the merits of forcible euthanasia—at least until reports of wholesale Nazi exterminations began to appear in American newspapers in 1941 and 1942.<sup>7(p180)</sup>

The fundamental argument in Germany for forcible euthanasia was economic (Figure 14-7 and Figure 14-8): Euthanasia was justified as a kind of “preemptive triage” to free up beds. This became especially important in war time. I want to stress this: Things



**Fig. 14-6.** “How Racial Questions Arise: Black and White in America.” Illustration from the popular magazine *Neues Volk* depicting restrictions on the civil rights of blacks in the United States. Caption at top reads “How Racial Questions Arise: White and Black in America.” Map indicates states where:

- Blacks have no voting rights, are not allowed to marry whites, and are segregated from whites (dark black).
- Blacks face all of the above restrictions with the exception of voting rights (darkly spotted).
- Black-white intermarriage is not allowed; blacks and whites attend separate schools (dark cross-hatched lines).
- Black-white intermarriage is the only restriction blacks face (light cross-hatched lines).

Nazi journals used the example of racial legislation in the United States to defend the suppression of civil rights of Jews in Germany. From *Neues Volk*, 1 March 1936:9.



**Fig. 14-7.** “The Prussian Government Provides Annually the Following Funds for: A Normal Schoolchild (125 RM [reichsmarks]); a Slow Learner (573 RM); the Educable Mentally Ill (950 RM); and Blind or Deaf-Born Schoolchildren (1,500 RM).” This illustration depicts the burden of maintaining the socially unfit. From *Volk und Rasse*, 8 (1933):156.



**Fig. 14-8.** "You are Sharing the Load! A Genetic Defective Costs Approximately 50,000 Reichsmarks by the Age of 60." This poster, from an exhibit on racial hygiene produced by the Reichsnährstand, illustrates the burden of the mentally ill on the healthy German population. From Walter Gross, "Drei Jahre rassenpolitische Aufklärungsarbeit," *Volk und Rasse*, 10 (1935):335.

can occur in war that would not be tolerated in peacetime. The onset of the euthanasia operation was consciously timed to coincide with the invasion of Poland: The first gassings of mental patients, for example, occurred at Posen, in Poland, on October 15, 1939, just 45 days after the invasion of that country marking the beginning of World War II.

### *Euthanasia as a Continuing Medical Practice*

The first part of the German euthanasia program was code-named "T-4," named after the address of its administrative headquarters—Tiergartenstrasse 4—where decisions were made about who should live or die. The figure of 70,000 killed was no accident: In the original planning for the T-4 operation, the idea was that one in a thousand Germans would be killed. For a population of 70 million, that meant 70,000

people. When that figure was reached in August 1941, the gas phase of the operation was ended and euthanasia became part of normal hospital routine.<sup>18-20</sup> Handicapped infants were thereafter regularly put to death; persons requiring long-term psychiatric care and judged "incurable" suffered a similar fate. Doctors made the decisions, filled out the forms, issued orders for transport to the euthanasia institutions, and released the gas into the chambers. There is indirect evidence that even some of Germany's own war-wounded were killed late in the war. Euthanasia experts were sent to the front to escort severely wounded soldiers back to Germany; some may never have reached home alive after "treatment" by the death doctors.<sup>21</sup>

The importance of war to the utilization of euthanasia can also be seen in the fact that during World War I, half of all German mental patients starved to death (45,000 in Prussia alone, according to one estimate<sup>7(p178,n5)</sup>—they were simply too low on the priority list to receive rations. In the Nazi period, the starvation of the mentally ill, the homeless, and other "useless eaters" became official state policy, after a prolonged propaganda campaign to stigmatize the mentally ill and handicapped as having "lives not worth living." Psychiatrists eventually worried that their aggressive efforts to eliminate Germany's mental defectives would render their own skills useless. Professor Wuth, chief physician for the army, pondered in the midst of the war that with so many mental patients being eliminated by euthanasia, "who will wish to study psychiatry?"<sup>6(p42)</sup> The lament is not a moral complaint, but rather a worry that there will be no one left to treat.

One should recall that the euthanasia program was planned and administered by leading figures in the German medical community. When the first experiments to test different gases for killings took place in Brandenburg Hospital in January 1940, Viktor Brack, head of the operation, emphasized that such gassings "should be carried out only by physicians." Brack cited the chilling motto: "The needle belongs in the hand of the doctor." (Prior to the gas-chamber phase of the operation, experiments with other forms of killing had been tried, including lethal injection and driving patients around in a van with the exhaust redirected back up into the back of the van. Gas chambers were eventually constructed to improve the efficiency of this process.)

It is also important to appreciate the *banality* of the euthanasia operation. In 1941, for example, the psychiatric institution at Hadamar celebrated the



cremation of its 10,000th patient in a special ceremony, where everyone in attendance—secretaries, nurses, and psychiatrists—received a bottle of beer for the occasion. The corpse of a recent victim was put on display, on a bed of ice, for the party.<sup>22(p157)</sup>

### Instituting Mass Murder: The Genocide Program (1941)

Historians exploring the origins of the Nazi destruction of “lives not worth living” have only recently begun to stress the link between the euthanasia operation on the one hand, and the “final solution” on the other. And yet the two programs were linked in both theory and in practice. The most important theoretical link was what might be called the “medicalization of anti-Semitism,” part of a broader effort to reduce a host of real or perceived social problems—unemployment, homosexuality, crime, deviancy, “antisocial behavior,” and so forth—to medical or ideally surgical problems. It is again necessary to stress how German racial theorists vilified Jews during this period. Jews were blamed for many of Germany’s troubles in the years after World War I, and this threat was defined in racial terms. Jews were odious, or immoral, or money-hungry because of their race, their biology, their genes. In the Nazi view of the world, to be Jewish (or Gypsy, or homeless) was to be criminal, and criminals were born, not made.

The Jews were also considered a threat through the specter of racial intermarriage. A series of laws barring Jews from certain kinds of employment and movement were followed by measures allowing Jewish couples to practice birth control and abortion, while “ideal” German couples were denied these options. Then came the Nuremberg Laws, which greatly restricted Jews with respect to marriage and civil rights. The cloak of war allowed the state to take even more drastic and murderous measures, such as euthanasia. Was there a “slippery

slope” in Germany at this time? I think not. I think it is better to characterize it as a violent push off a very steep slope, for these programs were not accidental, and their expansion was a direct consequence of explicit Nazi policies and principles. And the war, of course, allowed radical measures to be justified as emergency measures.

Experts did, in fact, debate—and not just privately—what to do about the “Jewish question.” During the late 1930s, German scientists proposed a number of different solutions. The agronomist Hans Hefelmann suggested exporting all Jews to Madagascar. Philip Bouhler, head of the Nazi party Chancellery, proposed sterilizing all Jews by X-rays. Viktor Brack recommended sterilizing the two-to-three million Jews capable of work, who might be put to use in Germany’s factories. German medical authorities also devoted themselves to this problem. During the early war years, the official journal of the German Medical Association (*Deutsches frzteblatt*) published a regular column on “Solving the Jewish Question,” reviewing achievements in this domain throughout the world.

The ultimate decision to *gas* the Jews emerged from the fact that the technical apparatus already existed for the destruction of the mentally ill. In the fall of 1941, with the completion of the bulk of the euthanasia operation, the gas chamber equipment at psychiatric hospitals was dismantled and shipped East, where it was reinstalled at Majdanek, Auschwitz, and Treblinka. The same doctors, technicians, and managers often followed the equipment. In this sense, there was a continuity in both theory and practice between the destruction of the “lives not worth living” in Germany’s mental hospitals and the destruction of Germany’s ethnic and social minorities. (Notes made by Adolf Eichmann at the Wannsee Conference [convened to address the “Final Solution”], and presented as evidence during the Nuremberg Tribunal, are presented in Attachment 14-4 to this chapter.)

## NAZI MEDICAL EXPERIMENTS

Given the effort to destroy entire peoples, the pervasiveness of ideals of racial superiority and inferiority, and the strength of German experimental traditions, it is hardly surprising that physicians exploited concentration camp inmates as subjects in human experiments. The now-notorious experiments chronicled in the postwar Nuremberg trials were carried out for various reasons. At Buchenwald, physicians forced people to drink seawater, to find out how long a man might survive without fresh wa-

ter. At Dachau, Russian prisoners of war were immersed in icy water to see how long a pilot might survive when shot down over the English channel, and to find out what kinds of protective gear or rewarming techniques were most effective. Prisoners were placed in vacuum chambers, to find out how the human body responds when pilots are forced to bail out at high altitudes (Figure 14-9 and Figure 14-10).

There were many other experiments. At Fort Ney, near Strasbourg, 52 prisoners were exposed to phos-



**Fig. 14-9.** A Luftwaffe experiment performed at Dachau by SS (*Schutzstaffel* ["protection echelon"]) physicians working in the context of aviation medicine. The subject was placed in a vacuum chamber to simulate the effects of explosive decompression. Approximately 70 to 80 people died in the course of the experiment (mostly Soviet and Polish prisoners of war), designed to explore the limits of human survivability in such circumstances. This photo (and many others) was submitted as evidence in the Nuremberg "Doctors Trial" (1946–1947).

gene gas (a chemical warfare agent) in 1943 and 1944 to test possible antidotes. At Auschwitz, physicians experimented with new ways to sterilize or castrate people as part of the plan to repopulate Eastern Europe with proper Germans.<sup>23</sup> (The idea was that these *untermenschen* [subhumans] could continue to work but could not reproduce.) Physicians performed limb and bone transplants on persons with no medical need and, in at least one instance, injected prisoners' eyes with dyes to see if eye color could be permanently changed. At Buchenwald,



**Fig. 14-10.** The brains of experimental victims from the Dachau high-altitude experiments were dissected shortly after death, as illustrated in this photo submitted as evidence in the Nuremberg "Doctors Trial" (1946–1947).

Gerhard Rose infected prisoners with spotted fever to test experimental vaccines against the disease; at Dachau, Ernst Grawitz infected prisoners with a broad range of pathogens to test homeopathic preparations. Nazi military authorities were worried about some of the exotic tropical diseases German troops could contract in Africa or Eastern Europe; physicians in the camps reasoned that the "human materials" at their disposal could be used to develop vaccines or remedies. Hundreds of people died in these experiments—and many of those who survived were forced to live with painful physical or psychological scars.

I do not want to get into the question of whether this was "good science" in a technical sense. Some experiments no doubt were, some no doubt were not. But judgment of the morality of research practices really should not depend on whether such practices were technically insightful. The two issues are often conflated. What I would rather focus on is the fact that, contrary to postwar apologies, doctors were never forced to perform such experiments. Physicians volunteered, hoping to serve their country or advance their careers (or both). In several cases, Nazi officials actually had to restrain overzealous physicians from pursuing even more ambitious experiments.<sup>24(p26,n20)</sup> The logic governing the use of prisoners for terminal human experiments was similar to that underlying efforts to eliminate "lives not worthy of living." In the Nazi view of the world there were superior and inferior races, worthies and unworthies, healthy and diseased. If it required the deaths of 20 or even 100 Russian pris-

oners to increase the chances of saving one German pilot, this was, in the Nazi scale of values, a justified investment. Concentration camp inmates were valued as slave labor, and when that labor was exhausted they were not even worth keeping alive. Their lives were without value, and their deaths implied a sav-

ings. Doctors acting in such a manner were not without values; their values were clear, and they acted in accordance with those values (Nordic supremacy, total war demands extreme measures, Jews are vermin, and so forth). Attachment 14-5 summarizes the "Doctors' Trial" at Nuremberg.

## QUESTIONS AND INTERPRETATIONS

Most leading German physicians supported the Nazis. Why? Physicians commonly boasted that their profession had shown its allegiance earlier and in greater strength than any other professional group. But why?

First of all, we should recall that the medical profession at this time was quite conservative, in the sense of opposing racial and gender equality, supporting German rearmament, opposing socialized medicine, opposing civil liberties, and so forth. Prior to 1933, the leadership of the profession was dominated by the *Deutschnationalen*—a German nationalist party that subsequently threw its support to Hitler. Not all physicians, of course, were conservative—nor violently anti-Semitic, as was the case with many Nazi medical leaders. The profession was politically polarized after the economic collapse in the late 1920s and early 1930s; physicians moved from the center to the Left or (more often) to the Right. Socialists and communists, however, were always a minority in the German medical community. By the end of 1932, the Nazi Physicians' League was twice as large as the Association of Socialist Physicians (3,000 vs. 1,500 members). In the Reichstag elections leading to the Nazi seizure of power, nine physicians were elected to represent the Nazi Party; only one physician was elected to represent the socialists or communists.

But why did doctors flock to the Party? I would suggest that there was a certain ideological affinity between medicine and Nazism in Germany at this time. Many physicians were attracted by the importance given to race and health in the Nazi view of the world; physicians were intrigued by the effort to biologize or medicalize a broad range of social problems, including crime, poverty, homosexuality, the falling birth rate, the collapse of German imperial strength, and the "Jewish and Gypsy problems." Doctors also liked the attention given to athleticism and bodily purity, and their uncompromisingly brutal attitude towards physical and mental disability.

The Nazis, in turn, were able to exploit both the intimacy and the authority of the traditional physician-patient relationship. Crudely put: you could do things with doctors that would have been much

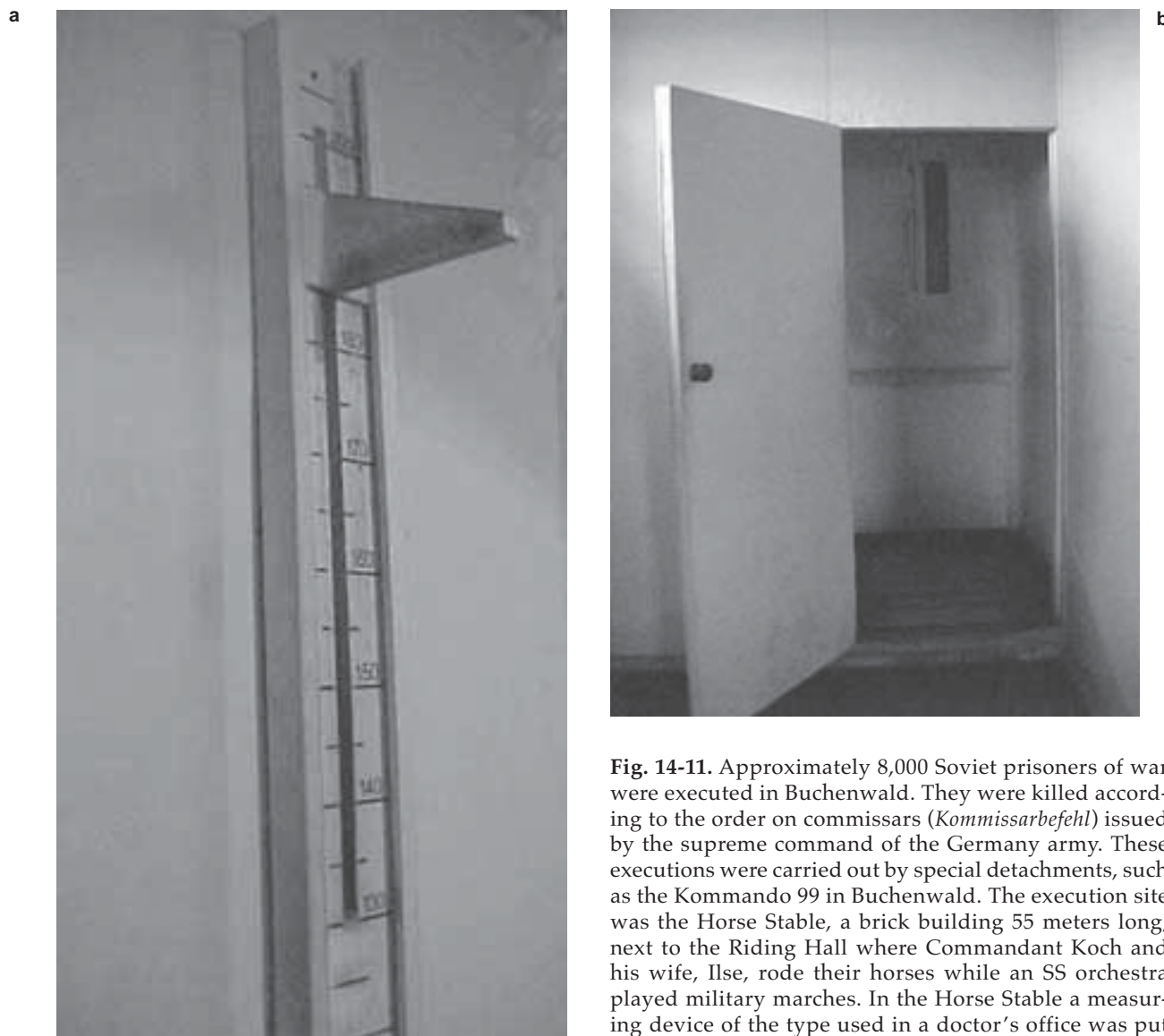
harder without. Doctors served as executioners; doctors performed "selections" (of people to be killed) in the camps. Himmler recognized the special role of physicians in this regard: on 9 March 1943, the SS Reichsfuehrer issued an order that henceforth only physicians trained in anthropology could perform selections at concentration camps.<sup>6(p18)</sup> Medicine also served as a disguise. In the Buchenwald concentration camp, 8,000 Russian prisoners of war were executed in the course of supposed "medical exams," using a device disguised as an instrument to measure height. A reconstruction of the device is on display at the museum established by the East Germans among the ruins of the former concentration camp<sup>25</sup> (Figure 14-11).

There is a further element. The rise of the Nazis coincides with a period of concern about what was widely known as the "crisis" in modern medicine: a crisis associated with increasing specialization and bureaucratization, a crisis traced alternatively to capitalism, Bolshevism, materialism, or any of a host of other real or apparent threats to human health and well-being. The Nazis promised to restore Germany to a more natural (*biologische*) way of living, a future with "more Goethe, and less Newton."

In such a climate, Jews became a convenient scapegoat for all that was wrong in modern medicine. This was especially easy because Jews were in fact quite prominent in the German medical profession: 60% of Berlin's physicians, for example, were either Jewish or of Jewish ancestry, even though Jews were less than 1% of the German population as a whole. Opportunistic professionals profited from the banishment of their Jewish colleagues.

Indeed, in a number of important ways the medical profession might even be said to have prospered under the Nazis. The medical community grew substantially under the Nazis, despite the forced exclusion of Jews and communists. It may even be true that physicians achieved a higher status in the Nazi period than any time before or since. During the 12 years of Nazi rule, for example, the office of *Rektor* (president) at German universities was occupied by physicians about half of the time; this contrasts with 19% for the decade prior to the rise of the Nazis





**Fig. 14-11.** Approximately 8,000 Soviet prisoners of war were executed in Buchenwald. They were killed according to the order on commissars (*Kommissarbefehl*) issued by the supreme command of the Germany army. These executions were carried out by special detachments, such as the Kommando 99 in Buchenwald. The execution site was the Horse Stable, a brick building 55 meters long, next to the Riding Hall where Commandant Koch and his wife, Ilse, rode their horses while an SS orchestra played military marches. In the Horse Stable a measuring device of the type used in a doctor's office was put on the wall. A narrow slot in the device (a) allowed the

executioner to shoot the prisoner in the neck from a booth behind the wall (b). Military marches and music drowned out the noise of the shots. After the war, the Horse Stable was torn down but the measuring stick and the booth behind it were recreated in the pathology lab in the crematorium for visitors to view. Further information is available at: <http://www.scrapbookpages.com/EasternGermany/Buchenwald/Atrocities.html>.

and 18% for the two decades following the Nazi period. Doctors also prospered financially under the Nazis. In 1926, lawyers earned an average annual salary of 18,000 RM, compared with only 12,000 RM for physicians. By 1936 doctors had reversed this, and now earned 2,000 RM more than lawyers.

Biomedical science was not, in other words, simply destroyed by the Nazis—the story is more complex. At the New York Academy of Medicine, or Stanford's Lane Library, or any other major medical library, one can find more than 150 German medical journals published continuously through

the Nazi period, occupying more than 100 meters of shelf space. More than two dozen new medical journals began publishing during the Nazi period, and several of these are still being published today.

The Nazis suppressed some areas of biomedicine, and encouraged others. The Nazis supported extensive research into ecology, public health, cancer, nutritional physiology, aviation medicine, occupational health and safety, tobacco and asbestos epidemiology, behavioral genetics, and (of course) racial- and sociobiology. The Nazi government funded research on the effects of exposure to X-rays



and heavy metals; and some of the first reliable studies of the health effects of asbestos were done in this period. The Nazis were among the first to initiate health-based bans on smoking in public buildings, and possessed the world's strongest antitobacco movement.<sup>26</sup> Nazi leaders organized unprecedented support for midwifery,<sup>27</sup> homeopathy, and a number of other areas of heterodox medicine. Nazi physicians recognized the importance of a diet

high in fruit and fiber, and in the early war years managed to have a law enacted requiring every German bakery to produce whole-grain bread. Nazi physicians restricted the use of DDT, and denied women tobacco-rationing coupons on the grounds that nicotine could harm the fetus. Racial hygiene itself was supposed to provide "long-run," preventive care for the German germ plasm, complementing shorter-term personal and social hygiene.

## CONCLUSION

Let me simply note in conclusion four points. First, it is important to appreciate not just the extent to which the Nazis were able to draw upon the imagery and authority of medicine, but also the extent to which Nazi ideology informed the practice of medical science. Secondly, physicians were not bystanders, or even pawns; many (not all, but not a few) helped to construct the racial policies of the Nazi state. It is probably as fair to say that Nazi racial policy emerged from *within* the scientific community, as to say that it was imposed *upon* that community. Thirdly, it is commonly said that the Nazis "politicized" science, and that much of what went wrong under the Nazis can be traced to this politicization. The argument I've made here is that one can't consider the experience of the medical profession in terms of a simple "use and abuse" model of science. Among physicians, there were as many volunteers as victims; no one had to force physicians to support the regime. Hans Hefelmann testified to this effect in the euthanasia trial at Limburg in 1964: "[N]o doctor was ever ordered to participate in the euthanasia program; they came of their own volition."<sup>7(p193)</sup>

The Nazis did not have to politicize science; in fact, it is probably fair to say that the Nazis "depoliticized science"—in the sense that they destroyed the political diversity that had made Weimar medicine and public health the envy of the world (with its local outpatient clinics, self-help networks, single-payer reimbursement, and similarly progressive programs). Nazism itself was supposed to transcend politics. The German state was to be a *Volksstaat*, not a *Parteistaat*; National Socialism was to be counted a "movement," not a "party." The

Nazis medicalized politics as much as they politicized medicine; racial minorities were ostracized and then exterminated, and problems of sexual or social deviance (or both) were transformed into "surgical problems" in need of surgical solutions.

Finally, I do not want to leave the impression that the horrors of this period can be attributed to anything inherent in science or in medicine, or even in "technocracy" or the rule of professional elites. It took a powerful state to concentrate and unleash the destructive forces within German medicine, and without that state, science would have remained impotent in this sphere. In the midst of a war engineered by an aggressive, expansionist state, Nazi ideologues were able to turn to doctors to carry out acts that have come to be regarded as the embodiment of evil.

Rudolf Ramm, the Nazi medical ethicist whose words I cited to begin this chapter, noted in his 1942 book on medical ethics that physicians will often encounter patients who complain of the treatment they have received from another doctor. Ramm advised that physicians should always take the side of the other doctor, turning a blind eye to whatever incompetence or malpractice their colleagues may be accused of. Today one hopes that "professional ethics" means more than vigilance in the defense of the honor of the profession against its critics. Or at least that professional honor will always be understood to include a requirement that professionals act in an ethical and socially responsible manner. Elaborating upon this ethic has become the painful task of physicians ever since Nuremberg, though hopefully we will never be so vain as to think the job is finished.

## ACKNOWLEDGMENT

Further details and documentation of my research on medicine during the Nazi era can be found in: Proctor RN. *Racial Hygiene: Medicine Under the Nazis*. Cambridge, Mass: Harvard University Press; 1988; and Proctor RN. *Nazi War on Cancer*. Princeton, NJ: Princeton University Press; 1999.

## REFERENCES

1. Ramm R. *Ärztliche Rechts- und Standeskunde*. Berlin: Walter de Gruyter; 1942: 88–89.
2. Taylor T. Opening statement of the prosecution, 9 December 1946. In: Annas GJ, Grodin MA, eds. *The Nazi Doctors and the Nuremberg Code*. New York: Oxford University Press; 1992.
3. Aly G, Chroust P, Pross C. *Cleansing the Fatherland: Nazi Medicine and Racial Hygiene*. Baltimore: Johns Hopkins University Press; 1994.
4. Lifton RJ. *Nazi Doctors*. New York: Basic Books; 1986.
5. Kater MH. *Doctors Under Hitler*. Chapel Hill, NC: University of North Carolina Press; 1989.
6. Müller-Hill B. *Murderous Science: Elimination by Scientific Selection of Jews, Gypsies, and Others, Germany 1933–1945*. New York: Oxford University Press; 1988.
7. Proctor R. *Racial Hygiene: Medicine Under the Nazis*. Cambridge, Mass: Harvard University Press; 1988.
8. Weindling P. *Health, Race, and German Politics Between National Unification and Nazism, 1870–1945*. New York: Cambridge University Press; 1989.
9. Ploetz A. *Die Tüchtigkeit unsrer Rasse und der Schutz der Schwachen*. Berlin: Gustav Fischer; 1895.
10. Lenz F. *Menschliche Auslese und Rassenhygiene (Eugenik)*, 3rd ed. Munich: JF Lehmann; 1931.
11. Bauer D. So lebt der Düce. *Auf der Wacht*. 1937;54:19–20.
12. Deichmann U. *Biologen unter Hitler: Vertreibung, Karrieren, Forschung*. Frankfurt: Campus Verlag; 1992.
13. Mitscherlich A, Mielke F. *Medizin ohne Menschlichkeit*. Frankfurt: Fischer; 1960.
14. Hamann M. Die Morde an polnischen und sowjetischen Zwangsarbeitern in deutschen Anstalten. In: Aly G, Ebbinghaus A, Hamann M, Pfäfflin F, Preissler G, eds. *Aussonderung und Tod: Die klinische Hinrichtung der Unbrauchbaren*. Berlin: Rotbuch Verlag; 1985: 131.
15. Wie Rassenfragen entstehen. *Neues Volk*, 1 March 1936: 9.
16. Keine Negerärzte in der Amerikanischen Standesorganisation. *Archiv für Rassen- und Gesellschaftsbiologie*. 1939–1940;33:96,276.
17. Kennedy F. The problem of social control of the congenitally defective: Education, sterilization, euthanasia. *Am J Psychiatry*. 1942;99:13–16.
18. Klee E. *“Euthanasie” im NS-Staat, die “Vernichtung lebensunwerten Lebens.”* Frankfurt: S Fischer Verlag; 1983.
19. Burleigh M. *Death and Deliverance: “Euthanasia” in Germany, 1900–1945*. Cambridge: Cambridge University Press; 1995.

20. Friedlander H. *The Origins of Nazi Genocide: From Euthanasia to the Final Solution*. Chapel Hill, NC: University of North Carolina Press; 1995.
21. Aly G. Medicine against the useless. In: Aly G, Chroust P, Pross C. *Cleansing the Fatherland: Nazi Medicine and Racial Hygiene*. Baltimore: Johns Hopkins University Press; 1994: 22–98.
22. Wertham F. *A Sign for Cain. An Exploration of Human Violence*. New York: Macmillan; 1966.
23. Baader G. Menschenexperimente. In: Kudlien F, ed. *Ärzte im Nationalsozialismus*. Cologne: Kiepenheuer & Witsch; 1985: 178–180.
24. Annas GJ, Grodin MA, eds. *The Nazi Doctors and the Nuremberg Code: Human Rights in Human Experimentation*. New York: Oxford University Press; 1992.
25. Available at: <http://www.scrapbookpages.com/EasternGermany/Buchenwald/Crematorium.html>. Accessed 3 December 2001.
26. Proctor RN. The Nazi war on tobacco: Ideology, evidence, and public health consequences. *Bull Hist Med*. 1997;71:435–88.
27. Fallwell L. *Birthing the Political Body: Nazi Midwives and National Identity* [dissertation]. Pennsylvania State University. 2003.

## Chapter 14: ATTACHMENTS

### SEMINAL EVENTS IN NAZI MEDICAL ETHICS

#### EVENT 1: TIMELINE OF POLITICAL AND MEDICAL EVENTS IN GERMANY, 1918 TO 1945

Date	Political Event	Medical Event
1918	<b>11 November:</b> End of World War I, revolutionary uprisings of soldiers and workers, the Kaiser resigns. Proclamation of the Republic.	Widespread famine in Germany, epidemic diseases spread; tens of thousands of patients in German mental hospitals die of hunger and infectious disease.
1919	Widespread malnutrition, housing shortages, accelerating inflation, and widespread poverty causing severe social tensions.  <b>6–11 January:</b> Bloody suppression of the revolution by an alliance of the right wing of the Social Democratic Party under Friedrich Ebert and officers of the Army. Founders of the communist Party Rosa Luxemburg and Karl Liebknecht are murdered.  <b>January–February:</b> First session of the National Assembly in Weimar (beginning of the Weimar Republic), social democratic/liberal coalition government, Ebert elected president of the Reich.  <b>28 June:</b> Treaty of Versailles obliges Germany to pay high reparations and to yield territories to France and Poland; extreme right blames the conditions of the treaty on the democratic parties.  Nazi Party founded.	
1920	Continuing severe social and political tensions.	Alfred Grotjahn, social democratic physician and eugenicist, accepts first chair for social hygiene at Berlin University. The renowned jurist Karl Binding and the psychiatrist Alfred Hoche publish their book, “The Sanctioning of the Destruction of Life Unworthy of Living,” which calls for the killing of the mentally ill and handicapped as “burdens to the community.”
1921	Continuing severe social and political tensions.	Publication of the standard textbook of eugenics, “The Principles of Human Genetics and Racial Hygiene,” by Erich Baur, Eugen Fischer, and Fritz Lenz; Hitler bases his racist theories in “Mein Kampf” on parts of this book.
1922	<b>24 June:</b> Secretary of State Walther Rathenau assassinated by right wing extremists.	
1923	<b>9 November:</b> Hitler and officers attempt a coup d’état in Munich; attempt fails and Hitler jailed.	First chair for racial hygiene at the University of Munich given to the eugenicist Fritz Lenz.
1924	After deflation of the Reichsmark, period of relative economic and social stability.	Period of reforms in the health sector: Foundation of outpatient clinics run by the public health insurance, along with counseling centers for sexual and marital problems and clinics for drug addicts. Increase in the number of clinics for infant care, venereal disease and tuberculosis patients. Institutions are predominantly the domain of social democratic and communist doctors, many of whom are Jewish.
1926		Otto Reche establishes “German Society for Blood Group Research” to find reliable means of distinguishing Aryans from Jews.



Date	Political Event	Medical Event
1927		<p><b>21 January:</b> Law for the Prevention of Venereal Disease. Important achievement of the social hygiene movement.</p> <p><b>11–17 September:</b> Establishment of the Kaiser Wilhelm Institute for Anthropology, Human Genetics, and Eugenics in Berlin. Eugen Fischer appointed as director.</p>
1929	Worldwide economic depression, which severely affects Germany; collapse of the state budget, unemployment figures rise to 2 million.	<p>Closing down of many public health institutions, reduction of free health care.</p> <p>National Socialist Physicians League formed.</p>
1930	<b>September:</b> Sensational rise of votes for the Nazi party in the elections for the Reichstag.	
1932	Over 6 million unemployed, street fights between the SA ( <i>Sturmabteilung</i> [storm troopers]) and communists in the big cities.	
	<b>July:</b> Nazi party wins 38% of the votes in the Reichstag election, making it the strongest faction.	<b>2 July:</b> Committee of the Prussian State Health Council drafts a sterilization law. The law permits voluntary sterilization or sterilization with the consent of a guardian.
1933	<p><b>30 January:</b> President Hindenburg, a former World War I general, appoints Hitler chancellor of the Reich.</p> <p><b>1 February:</b> Dissolution of the Reichstag.</p> <p><b>27 February:</b> After the burning of the Reichstag, for which the communists are falsely blamed, purge of political opponents all over the Reich.</p> <p><b>22 March:</b> Establishment of the first concentration camp for political opponents in Dachau near Munich.</p> <p><b>1 April:</b> Call for a boycott of all Jewish businesses, doctors, and lawyers.</p> <p><b>4 April:</b> “Law for the Restitution of the Civil Servants’ Status” orders the exclusion of “non-Aryans” and “enemies of the state” from government employment.</p> <p><b>2 May:</b> Dissolution of the trade unions.</p> <p><b>10 May:</b> Establishment of the Nazi Trade Union “German Work Front” with compulsory membership for all working people.</p> <p><b>1 June:</b> Decree for the provision of “marriage loans” for young couples. For each newborn child a quarter of the loan is remitted.</p>	<p><b>January:</b> Membership in National Socialist Physicians League reaches almost 3,000—6% of the entire profession.</p> <p><b>March and April:</b> Purge of Jewish and socialist physicians by SA storm troopers in all state hospitals and public health institutions.</p> <p><b>20 April:</b> Decree for admission of doctors to panel practice allows the exclusion of “non-Aryans” and “enemies of the state” from panel practice.</p>
		<b>14 July:</b> “Law for the Prevention of Genetically-Diseased Offspring” allows compulsory sterilization of anyone with hereditary epilepsy, schizophrenia, manic-depressive illness, feeble-mindedness, severe alcoholism, and a number of other ailments.
1935		<b>11 March:</b> Leading racial hygienists Eugen Fischer, Fritz Lenz, and Hans F.K. Günther, as well as civil servants in the Ministry of the Interior, plan the forcible sterilization of children of French-African occupation soldiers, the so-called Rhineland half-castes.

Date	Political Event	Medical Event
		<p><b>15 September:</b> Nuremberg “Law for the Protection of German Blood and German Honor,” establishes criteria for defining Jews, prohibits marriages between Jews and “Aryans,” and limits other civil rights of Jews.</p> <p><b>18 October:</b> Corollary to the Sterilization Law prohibits marriages between “genetically-diseased” and “healthy” people and mandates forcible abortion of fetuses of parents with “genetic illnesses” up to the 6th month of pregnancy.</p>
1936	<p><b>18 October:</b> Goring is put in charge of the economic “4-year plan,” which includes the rearmament of Germany. Drastic increase in work norms and productivity.</p>	<p><b>5 February:</b> Decree by the Ministry of the Interior setting up an elaborate genetic registry for all patients in mental hospitals.</p> <p><b>November:</b> Psychiatrist Robert Ritter begins working on the racial classification of Gypsies in the Reich Health Office in Berlin.</p>
1937	<p><b>End of year:</b> A propaganda campaign by German Work Front reduces the average loss of working days due to illness from 23 days in 1933 to approximately 7 days in 1937.</p>	<p><b>Spring:</b> Sterilization of the Rhineland half-castes is begun on the basis of expert reports from Fischer and other racial hygienists.</p>
1938	<p><b>9 November:</b> State organized pogrom against Jews throughout Germany (<i>Kristallnacht</i>).</p>	<p><b>30 September:</b> Jewish physicians lose their licenses.</p>
1939	<p><b>1 September:</b> Beginning of World War II with the German assault on Poland.</p>	<p>Law is passed requiring that all twins be registered with Public Health Offices for the purpose of genetic research.</p> <p><b>18 August:</b> Ordinance of the Ministry of the Interior obliges physicians and midwives to report newborn babies with deformities, marking the beginning of child “euthanasia.”</p> <p><b>1 September:</b> Hitler’s Enabling Act for “euthanasia,” the “mercy killing” of mental patients, is backdated to this date.</p> <p><b>October:</b> Questionnaires are distributed to mental hospitals. Using these questionnaires, leading psychiatrists decide which patients are to be granted a “mercy death” (ie, killed).</p>
1940	<p><b>January:</b> Shooting of mental patients is carried out in occupied Poland.</p>	<p><b>January:</b> The killing of mental patients using gas begins in a number of selected hospitals.</p> <p><b>End of year:</b> Leading psychiatrists, eugenicists, and administrators discuss the issuance of a euthanasia law.</p>
1941	<p><b>22 June:</b> Attack against the Soviet Union. The Special Forces of the SS (<i>Schutzstaffel</i> [protection echelon]) and the Wehrmach begin mass murder of Jews, Gypsies, mental patients, beggars and political officers of the Red Army.</p>	

Date	Political Event	Medical Event
		<b>August:</b> Following public protests by Catholic Bishop Count von Galen and other priests, the killing of mental patients using gas is stopped, but resumed shortly thereafter on a decentralized basis. Initial target of 70,000 killings already achieved.
	<b>11 December:</b> Germany declares war on the United States	Membership in Nazi Physicians' League reaches 38,000, representing approximately half of all doctors in the country.
1942	<b>20 January:</b> Wannsee conference, where SS leaders and government officials discuss details of how the "final solution of the Jewish question" is to be organized. The deportation and killing of Jews has already started.	<b>January and February:</b> Beginning of "terminal experiments" in low-pressure chambers on prisoners in Dachau. Other human experiments are carried out in ordinary medical and military institutions.
		<b>15 August:</b> Beginning of cold shock experiments on prisoners in Dachau.
	<b>16 December:</b> Himmler orders the "final solution of the Gypsy question." Gypsies are deported to Auschwitz.	<b>1 November:</b> Fischer retires as director of the Kaiser Wilhelm Institute for Anthropology, Human Genetics, and Eugenics. Otmar von Verschuer becomes director.
1943	<b>3 February:</b> Surrender of the 6th German army in Stalingrad. Turn of the war in favor of the Allies.	
		<b>30 May:</b> Josef Mengele becomes the camp doctor at Auschwitz, where he carries out research under von Verschuer's remote supervision.
1944		<b>9 March:</b> The neuropathologist Julius Hallervorden reports receiving 697 brains for research from patients killed at Brandenburg Hospital.
	<b>6 June:</b> Allied troops land at Normandy/France.	<b>Summer and Autumn:</b> Mengele has large quantities of body parts sent from Auschwitz to the Kaiser Wilhelm Institute for Anthropology, Human Genetics, and Eugenics in Berlin.
1945	<b>8 May:</b> Surrender of Germany, end of World War II in Europe.	
1946 to 1947		<b>9 December–19 July:</b> Trial of the First US Military Court in Nuremberg against 23 physicians, SS officers, and administrators responsible for fatal human experiments in concentration camps and research institutes as well as for the euthanasia killings (known as the Nuremberg Doctors Trial).

Developed from materials in an exhibit entitled *The Value of the Human Being: Medicine in Germany 1918–1945*. Berlin: Ärztekammer Berlin; 1991: 48–52, with substantive edit by Dr. Robert Proctor (chapter author).

## CHAPTER 14: ATTACHMENT

### EVENT 2: THE STERILIZATION LAW

#### **Law for the Prevention of Genetically Diseased Offspring, July 14, 1933 [summary of the key articles]**

1. Anyone who suffers from a genetic disease may be surgically sterilized if, in the judgment of medical science, it can be expected that his descendants will suffer from serious inherited mental or physical defects. Anyone who suffers from one of the following to be regarded as inheritably diseased within the meaning of this law: congenital feeble-mindedness, schizophrenia, manic-depression, congenital epilepsy, inheritable St. Vitus dance [Huntington's Chorea], hereditary blindness, hereditary deafness, serious inheritable malformations. In addition, anyone suffering from chronic alcoholism may also be sterilized.
2. Anyone who requests sterilization is entitled to it. If he be incapacitated or under a guardian because of low state of mental health or not yet 18 years of age, his legal guardian is empowered to make the request. In other cases of limited capacity the request must receive the approval of the legal representative. If a person be of age and has a nurse, the latter's consent is required. The request must be accompanied by a certificate from a citizen who is accredited by the German Reich stating that the person to be sterilized has been informed about the nature and consequence of sterilization.
3. Sterilization may also be recommended by the official physician or the official in charge of a hospital, sanitarium, or prison.
4. The request for sterilization must be presented in writing to, or placed in writing by the Genetic Health Court. The request must be certified by a medical document or authenticated in some other way. The business office of the court must notify the official physician.  
. . .
7. The proceedings of the Genetic Health Court are secret.  
. . .

Source: Modified from <http://www.mtsu.edu/~baustin/nurmlaw1.html>. Accessed 3 December 2001.



## CHAPTER 14: ATTACHMENT

### EVENT 3: THE NUREMBERG LAWS ON CITIZENSHIP AND RACE

The Nuremberg Laws were three measures drawn up by the Nazi government and signed into law by Hitler in 1935. The first of these, *The Reich Citizenship Law*, distinguished between citizens and [mere] residents to exclude Jews from citizenship based on race. The second of these, *The Law for the Protection of German Blood and German Honor*, forbade marriage and sexual relations between Jews and non-Jews. The third, *The Law for the Protection of the Genetic Health of the German People* (also known as the *Marital Health Law*) required couples to submit to medical examination before marriage to see if marriage might produce offspring suffering from any of the previously described “genetic infirmities” that were grounds for sterilization. Genetic “defectives” could marry if the other “engaged individual” was unable to procreate.

#### I. The Reich Citizenship Law: 15 September 1935<sup>1</sup>

##### Article 1

1. A subject of the State is a person who belongs to the protective union of the German Reich, and who therefore has particular obligations towards the Reich.
2. The status of subject is acquired in accordance with the provisions of the Reich and State Law of Citizenship.

##### Article 2

1. A citizen of the Reich is that subject only who is of German or kindred blood and who, through his conduct, shows that he is both desirous and fit to serve the German people and Reich faithfully.
2. The right to citizenship is acquired by the granting of Reich citizenship papers.
3. Only the citizen of the Reich enjoys full political rights in accordance with the provision of the laws.

##### Article 3

The Reich Minister of the Interior in conjunction with the Deputy of the Fuehrer will issue the necessary legal and administrative decrees for carrying out and supplementing this law. Promulgated: 16 September 1935. In force: 30 September 1935.

#### The Reich Citizenship Law: First Regulation (14 November 1935)

##### Article 1

1. Until further regulations regarding citizenship papers are issued, all subjects of German or kindred blood, who possessed the right to vote in Reichstag elections at the time the Citizenship Law came into effect, shall for the time being possess the rights of Reich citizens. The same shall be true of those to whom the Reich Minister of the Interior, in conjunction with the Deputy of the Fuehrer, has given preliminary citizenship.
2. The Reich Minister of the Interior, in conjunction with the Deputy of the Fuehrer, can withdraw the preliminary citizenship.

##### Article 2

1. The regulations in Article 1 are also valid for Reich subjects of mixed Jewish blood.
2. An individual of mixed Jewish blood is one who is descended from one or two grandparents who were racially full Jews, in so far as he or she does not count as a Jew according to Article 5, paragraph 2. One grandparent shall be considered as full-blooded if he or she belonged to the Jewish religious community.

##### Article 3

Only the Reich citizen, as bearer of full political rights, exercises the right to vote in political affairs or can hold public office. The Reich Minister of the Interior, or any agency empowered by him, can make exceptions during the transition period, with regard to occupation of public office. The affairs of religious organizations will not be affected.

##### Article 4

1. A Jew cannot be a citizen of the Reich. He has no right to vote in political affairs and he cannot occupy public office.

2. Jewish officials will retire as of 31 December 1935. If these officials served at the front in the world war, either for Germany or her allies, they will receive in full, until they reach the age limit, the pension to which they were entitled according to the salary they last received; they will, however, not advance in seniority. After reaching the age limit, their pensions will be calculated anew, according to the salary last received, on the basis of which their pension was computed.
3. The affairs of religious organizations will not be affected.
4. The conditions of service of teachers in Jewish public schools remain unchanged until new regulations for the Jewish school systems are issued.

#### Article 5

1. A Jew is anyone who is descended from at least three grandparents who are racially full Jews. Article 2, para. 2, second sentence will apply.
2. A Jew is also one who is descended from two full Jewish parents, if (a) he belonged to the Jewish religious community at the time this law was issued, or joined the community later, (b) he was married to a Jewish person, at the time the law was issued, or married one subsequently, (c) he is the offspring of a marriage with a Jew, in the sense of Section I, which was contracted after the *Law for the Protection of German Blood and German Honor* became effective, (d) he is the offspring of an extramarital relationship with a Jew, according to Section I, and will be born out of wedlock after 31 July 1936.

#### Article 6

1. Requirements for the pureness of blood as laid down in Reich Law or in orders of the NSDAP and its echelons—not covered in Article 5—will not be affected.
2. Any other requirements for the pureness of blood, not covered in Article 5, can be made only by permission of the Reich Minister of the Interior and the Deputy Fuehrer. If any such demands have been made, they will be void as of 1 January 1936, if they have not been requested by the Reich Minister of the Interior in agreement with the Deputy Fuehrer. These requests must be made by the Reich Minister of the Interior.

#### Article 7

The Fuehrer and Reich Chancellor can grant exemptions from the regulations laid down in the law.

## II. Law for the Protection of German Blood and German Honor: 15 September 1935<sup>2</sup>

Convinced that the purity of German blood is crucial for the survival of the German people, and moved by the will to safe-guard the German nation for the future, the Reichstag has resolved the following, unanimously, promulgated herewith [summary of Sections 1–7]:

1. Marriages between Jews and nationals of German or kindred blood are forbidden. Marriages performed in defiance of this law are void, even if, for the purpose of evading this law, they are concluded abroad. Annulments may be initiated only by the Public Prosecutor.
2. Sexual relations between Jews and Germans or peoples of kindred blood are forbidden.
3. Jews are not permitted to employ female nationals of German or kindred blood in their households.
4. Jews are forbidden to hoist the national flag or to present the colors of the Reich. They are, however, permitted to present the Jewish colors. The exercise of this right is protected by the State.
5. A person who acts contrary to the prohibition of Section 1 will be punished with hard labor. A person who acts contrary to the prohibition of Section 2 will be punished with imprisonment or hard labor. A person who acts contrary to Section 3 or 4 will be punished with imprisonment up to a year and a fine or with one of these other penalties.
6. The Reich Minister of the Interior in agreement with the Deputy of the Fuehrer will issue the legal and administrative regulations which are required for the implementation and supplementation of this law.
7. The law will become effective on the day after promulgation, Section 3, however, only on 1 January 1936.

Nuremberg, the 15th day of September 1935 at the Reich Party Rally of Freedom.

The Fuehrer and Reich Chancellor:	Adolph Hitler
The Reich Minister of the Interior:	Frick
The Reich Minister of Justice:	Dr. Gürtner
The Deputy of the Fuehrer:	R. Hess

**III: The Law for the Protection of the Genetic Health of the German People: 18 October 1935<sup>3</sup>**

1. (1) A marriage cannot be completed:
  - (a) if one of the engaged suffers from an infectious disease which may result in a significant damage to the health of either of the partners or the offspring,
  - (b) if one of the engaged is legally mentally disabled (a ward of the state) or has been placed under temporary guardianship,
  - (c) if one of the engaged, even if not legally mentally disabled, suffers from a mental disability which renders the marriage undesirable for the population,
  - (d) if one of the engaged suffers from an inherited illness as defined by the law for the prevention of descendants.
- (2) The condition defined in Section 1d does not apply to marriages if the other engaged individual is unable to procreate.
2. Prior to their marriage the engaged have to demonstrate via a marriage competency certificate obtained from the (district) health office that any restrictions listed in Section 1 do not apply to them.
3. (1) A marriage that has been completed even though the restrictions of Section 1 apply is invalid if the health office certificate has been obtained, or if the cooperation of the official completing the marriage ceremony has been generated by knowingly false statements. The marriage is also invalid if the marriage was completed in other countries for the purpose of avoiding the legal restrictions. A court case to invalidate the marriage can only be initiated by the state prosecutor.
- (2) The marriage is valid as of the day of its initiation if the conditions leading to the restrictions later no longer apply.
4. (1) Anyone who illegally engages in a prohibited (see Section 3) marriage will be imprisoned for no less than three months. Attempts toward that purpose are also punishable.
- (2) A court case against persons competing a prohibited marriage will only be initiated if the marriage has been declared invalid.
5. (1) The prescriptions of this law are not applicable, if both of the engaged or if the groom are foreign nationals.
- (2) A court case against a foreign national is only possible on order of the Minister of Justice in cooperation with the Minister of the Interior.
6. The Minister of the Interior can permit exceptions from the restrictions of this law.
7. The Minister of the Interior, in coordination with the Fuehrer and the Minister of Justice will generate decrees on methods as well as additional details toward legal and administrative application of the law.
8. (1) The law becomes effective the day after its publication
- (2) The time point when Section 2 is effective will be determined by the Minister of the Interior. Up to that point in time, a marriage competency certificate should be provided only where doubts exist.

Berlin, 14 November 1935

Fuehrer and Chancellor

*Adolf Hitler*

Minister of the Interior

*Frick*

Deputy of the Fuehrer *R. Hess*, Minister Without a Department

Minister of Justice *Dr. Gürtner*

**First Decree on the Application of the Marriage Health Law of 29 November 1935**

1. Obtainment of a marriage competency certificate is a component of marriage counseling to be obtained from the relevant District Health Office (Counseling Office for "Heritage and Racecare").
2. (1) To obtain a marriage competency certificate, the engaged individual must undergo a medical examination by the Health Office in the district where he/she resides or spends extended time. If the engaged resides or spends extensive time in a foreign country, he may apply for the medical examination at any German Health Office. The Health Office is required to investigate the genetic health condition of the engaged.
- (2) The engaged is permitted to seek the medical examination by a private practicing physician who has been authorized for this purpose by the national medical leader. The result of the medical examination is to be documented on a form page that is to be submitted to the relevant Health Office. The Health Office is required to base its conclusions on the result of that medical examination.

- (3) If one of the engaged lives or normally resides in a foreign country, a foreign physician can complete the medical examination if that physician's reliability has been certified by the German Consul of diplomatic representative after consultation with the relevant political leader of the [Nazi Party].
3. Until Section 2 of the law is in force, the marriage competency certificate is only required if the official performing the ceremony has reasoned doubts that conditions limiting conditions in line with Section 1 of the Marriage Health Law or Section 6 of the First Decree on the Application of the Marriage Health Law for the purpose of the protection of German blood and German honor (National Law Publication I S. 1334) exist.
4. The marriage competency certificate is generated by the Health Office that is responsible for the medical examination of the bride. If that Health Office is not also responsible for the medical examination of the groom, the certificate is not to be completed until documentation about the health of the groom is available.

Sources: (1) Available at: <http://www.us-israel.org/jsource/Holocaust/nurmlaw3.html>; accessed 27 September 2002. (2) Available at: <http://www.us-israel.org/jsource/Holocaust/nurmlaw4.html>; accessed 27 September 2002. (3) German version provided by the United States Holocaust Memorial Museum, Washington, DC. Translation courtesy of Siegfried Streufert, PhD, Professor Emeritus, Department of Behavioral Science, College of Medicine, Pennsylvania State University, Hershey, Pennsylvania.



## CHAPTER 14: ATTACHMENT

### EVENT 4: THE WANNSEE PROTOCOL FOR "THE FINAL SOLUTION"

On 20 January 1942 Reinhard Heydrich, Head of the Reichs Security Main Office (*Reichssicherheitshauptamt*), chaired a meeting of 14 high-ranking civil servants and SS [*Schutzstaffel* {"protection echelon"}] officers in a mansion in Berlin. As the decision to murder the Europeans Jews had been made earlier, the meeting was concerned with the organization and implementation of "The Final Solution," the decision to deport the Jews of Europe to the East and to murder them. The meeting has become known as the "Wannsee Conference," because of the street address of the mansion. In 1947 the minutes of the conference recorded by Adolf Eichmann were found in the files of the German Foreign Office. The document was used at the Nuremberg Tribunal. The following is a reformatted version of the English translation.

#### Minutes of discussion.

##### I.

The following persons [in addition to Reinhard Heydrich] took part in the discussion about the final solution of the Jewish question, which took place in Berlin, am Grossen Wannsee No. 56/58 on 20 January 1942.

Position/Name	Organization
Gauleiter Dr. Meyer	Reich Ministry for the Occupied Eastern territories
Reichsamtleiter Dr. Leibbrandt	
Secretary of State Dr. Stuckart	Reich Ministry for the Interior
Secretary of State Neumann	Plenipotentiary for the Four Year Plan
Secretary of State Dr. Freisler	Reich Ministry of Justice
Secretary of State Dr. Bühler	Office of the Government General
Under Secretary of State Dr. Luther	Foreign Office
SS-Oberführer Klopfer	Party Chancellery
Ministerialdirektor Kritzingen	Reich Chancellery
SS-Gruppenführer Hofmann	Race and Settlement Main Office
SS-Gruppenführer Müller	Reich Main Security Office
SS-Obersturmbannführer Eichmann	
SS-Oberführer Dr. Schöngarth, Commander of the Security Police and the SD in the Government General	Security Police and SD [ <i>sicherheitsdienst</i> {"security office"}]
SS-Sturmbannführer Dr. Lange, Commander of the Security Police and the SD for the General-District Latvia, as deputy of the Commander of the Security Police and the SD for the Reich Commissariat "Eastland"	Security Police and SD

##### II.

At the beginning of the discussion Chief of the Security Police and of the SD, SS-Obergruppenführer Heydrich, reported that the Reich Marshal had appointed him delegate for the preparations for the final solution of the Jewish question in Europe and pointed out that this discussion had been called for the purpose of clarifying fundamental questions. The wish of the Reich Marshal to have a draft sent to him concerning organizational, factual and material interests in relation to the final solution of the Jewish question in Europe makes necessary an initial common action of all central offices immediately concerned with these questions in order to bring their general activities into line. The Reichsführer-SS and the Chief of the German Police (Chief of the Security Police and the SD) was entrusted with the official central handling of the final solution of the Jewish question without regard to geographic borders. The Chief of the Security Police and the SD then gave a short report of the struggle which has been carried on thus far against this enemy, the essential points being the following: (a) the expulsion of the Jews from every sphere of life of the German people, and (b) the expulsion of the Jews from the living space of the German people.

In carrying out these efforts, an increased and planned acceleration of the emigration of the Jews from Reich territory was started, as the only possible present solution. By order of the Reich Marshal, a Reich Central Office for Jewish Emigration was set up in January 1939 and the Chief of the Security Police and SD was entrusted with the management. Its most important tasks were (a) to make all necessary arrangements for the preparation for an increased emigration of the Jews, (b) to direct the flow of emigration, and (c) to speed the procedure of emigration in each individual case. The aim of all this was to cleanse German living space of Jews in a legal manner.

All the offices realized the drawbacks of such enforced accelerated emigration. For the time being they had, however, tolerated it on account of the lack of other possible solutions of the problem. The work concerned with emigration was, later on, not only a German problem, but also a problem with which the authorities of the countries to which the flow of emigrants was being directed would have to deal. Financial difficulties, such as the demand by various foreign governments for increasing sums of money to be presented at the time of the landing, the lack of shipping space, increasing restriction of entry permits, or the cancelling of such, increased extraordinarily the difficulties of emigration. In spite of these difficulties, 537,000 Jews were sent out of the country between the takeover of power and the deadline of 31 October 1941. Of these approximately 360,000 were in Germany proper on 30 January 1933; approximately 147,000 were in Austria (Ostmark [*sic*]) on 15 March 1939; and approximately 30,000 were in the Protectorate of Bohemia and Moravia on 15 March 1939.

The Jews themselves, or their Jewish political organizations, financed the emigration. In order to avoid impoverished Jews' remaining behind, the principle was followed that wealthy Jews have to finance the emigration of poor Jews; this was arranged by imposing a suitable tax, i.e., an emigration tax, which was used for financial arrangements in connection with the emigration of poor Jews and was imposed according to income.

Apart from the necessary Reichsmark exchange, foreign currency had to be presented at the time of landing. In order to save foreign exchange held by Germany, the foreign Jewish financial organizations were—with the help of Jewish organizations in Germany—made responsible for arranging an adequate amount of foreign currency. Up to 30 October 1941, these foreign Jews donated a total of around 9,500,000 dollars [*sic*]. In the meantime the Reichsführer-SS and Chief of the German Police had prohibited emigration of Jews due to the dangers of an emigration in wartime and due to the possibilities of the East.

### III.

Another possible solution of the problem has now taken the place of emigration, i.e. the evacuation of the Jews to the East, provided that the Führer gives the appropriate approval in advance. These actions are, however, only to be considered provisional, but practical experience is already being collected which is of the greatest importance in relation to the future final solution of the Jewish question.

Approximately 11 million Jews will be involved in the final solution of the European Jewish question, distributed as follows [numbers of Jews in parentheses] among the individual countries: Germany proper (131,800); Austria (43,700); Eastern territories (420,000); General Government (2,284,000); Bialystok (400,000); Protectorate Bohemia and Moravia (74,200); Estonia ("free of Jews"); Latvia (3,500); Lithuania (34,000); Belgium (43,000); Denmark (5,600); France/occupied territory (165,000), unoccupied territory (700,000); Greece (69,600); Netherlands (160,800); Norway (1,300); Bulgaria (48,000); England (330,000); Finland (2,300); Ireland (4,000); Italy including Sardinia (58,000); Albania (200); Croatia (40,000); Portugal (3,000); Rumania including Bessarabia (342,000); Sweden (8,000); Switzerland (18,000); Serbia (10,000); Slovakia (88,000); Spain (6,000); Turkey (European portion) (55,500); Hungary (742,800); USSR [Union of Soviet Socialist Republics] (5,000,000, of which Ukraine has 2,994,684 and White Russia, excluding Bialystok, has 446,484).

The total is over 11,000,000. The number of Jews given here for foreign countries includes, however, only those Jews who still adhere to the Jewish faith, since some countries still do not have a definition of the term "Jew" according to racial principles. The handling of the problem in the individual countries will meet with difficulties due to the attitude and outlook of the people there, especially in Hungary and Rumania. Thus, for example, even today the Jew can buy documents in Rumania that will officially prove his foreign citizenship. The influence of the Jews in all walks of life in the USSR is well known. Approximately 5 million Jews live in the European part of the USSR, in the Asian part scarcely 1/4 million.

The breakdown of Jews residing in the European part of the USSR according to trades was approximately as follows: agriculture (9.1%); urban workers (14.8%); in trade (20.0%); employed by the state (23.4%); in private occupations such as medical profession, press, theater, etc. (32.7%). Under proper guidance, in the course of the final solution the Jews are to be allocated for appropriate labor in the East. Able-bodied Jews, separated according to sex, will be taken in large work columns to these areas for work on roads, in the course of which action doubtless a large portion will be eliminated by natural causes.

The possible final remnant will, since it will undoubtedly consist of the most resistant portion, have to be treated accordingly, because it is the product of natural selection and would, if released, act as a seed of a new Jewish

revival (see the experience of history.) In the course of the practical execution of the final solution, Europe will be combed through from west to east. Germany proper, including the Protectorate of Bohemia and Moravia, will have to be handled first due to the housing problem and additional social and political necessities. The evacuated Jews will first be sent, group by group, to so-called transit ghettos, from which they will be transported to the East. SS-Obergruppenführer Heydrich went on to say that an important prerequisite for the evacuation as such is the exact definition of the persons involved. It is not intended to evacuate Jews over 65 years old, but to send them to an old-age ghetto—Theresienstadt is being considered for this purpose. In addition to these age groups—of the approximately 280,000 Jews in Germany proper and Austria on 31 October 1941, approximately 30% are over 65 years old—severely wounded veterans and Jews with war decorations (Iron Cross I) will be accepted in the old-age ghettos. With this expedient solution, in one fell swoop many interventions will be prevented. The beginning of the individual larger evacuation actions will largely depend on military developments. Regarding the handling of the final solution in those European countries occupied and influenced by us, it was proposed that the appropriate expert of the Foreign Office discuss the matter with the responsible official of the Security Police and SD.

In Slovakia and Croatia the matter is no longer so difficult, since the most substantial problems in this respect have already been brought near a solution. In Rumania the government has in the meantime also appointed a commissioner for Jewish affairs. In order to settle the question in Hungary, it will soon be necessary to force an adviser for Jewish questions onto the Hungarian government. With regard to taking up preparations for dealing with the problem in Italy, SS-Obergruppenführer Heydrich considers it opportune to contact the chief of police with a view to these problems. In occupied and unoccupied France, the registration of Jews for evacuation will in all probability proceed without great difficulty. Under Secretary of State Luther calls attention in this matter to the fact that in some countries, such as the Scandinavian states, difficulties will arise if this problem is dealt with thoroughly and that it will therefore be advisable to defer actions in these countries. Besides, in view of the small numbers of Jews affected, this deferral will not cause any substantial limitation. The Foreign Office sees no great difficulties for southeast and western Europe.

SS-Gruppenführer Hofmann plans to send an expert to Hungary from the Race and Settlement Main Office for general orientation at the time when the Chief of the Security Police and SD takes up the matter there. It was decided to assign this expert from the Race and Settlement Main Office, who will not work actively, as an assistant to the police attaché.

#### IV.

In the course of the final solution plans, the Nuremberg Laws should provide a certain foundation, in which a prerequisite for the absolute solution of the problem is also the solution to the problem of mixed marriages and persons of mixed blood. The Chief of the Security Police and the SD discusses the following points, at first theoretically, in regard to a letter from the chief of the Reich chancellery:

- (1) Treatment of Persons of Mixed Blood of the First Degree: Persons of mixed blood of the first degree will, as regards the final solution of the Jewish question, be treated as Jews. From this treatment the following exceptions will be made: (a) Persons of mixed blood of the first degree married to persons of German blood if their marriage has resulted in children (persons of mixed blood of the second degree). These persons of mixed blood of the second degree are to be treated essentially as Germans. (b) Persons of mixed blood of the first degree, for whom the highest offices of the Party and State have already issued exemption permits in any sphere of life. Each individual case must be examined, and it is not ruled out that the decision may be made to the detriment of the person of mixed blood. The prerequisite for any exemption must always be the personal merit of the person of mixed blood. (Not the merit of the parent or spouse of German blood.) Persons of mixed blood of the first degree who are exempted from evacuation will be sterilized in order to prevent any offspring and to eliminate the problem of persons of mixed blood once and for all. Such sterilization will be voluntary. But it is required to remain in the Reich. The sterilized "person of mixed blood" is thereafter free of all restrictions to which he was previously subjected.
- (2) Treatment of Persons of Mixed Blood of the Second Degree: Persons of mixed blood of the second degree will be treated fundamentally as persons of German blood, with the exception of the following cases, in which the persons of mixed blood of the second degree will be considered as Jews: (a) The person of mixed blood of the second degree was born of a marriage in which both parents are persons of mixed blood. (b) The person of mixed blood of the second degree has a racially especially undesirable appearance that marks him outwardly as a Jew. (c) The person of mixed blood of the second degree has a particularly bad police and political record that shows that he feels and behaves like a Jew. Also in these cases exemptions should not be made if the person of mixed blood of the second degree has married a person of German blood.
- (3) Marriages between Full Jews and Persons of German Blood: Here it must be decided from case to case whether the Jewish partner will be evacuated or whether, with regard to the effects of such a step on the German relatives, [this mixed marriage] should be sent to an old-age ghetto.

- (4) Marriages between Persons of Mixed Blood of the First Degree and Persons of German Blood: (a) Without Children—If no children have resulted from the marriage, the person of mixed blood of the first degree will be evacuated or sent to an old-age ghetto (same treatment as in the case of marriages between full Jews and persons of German blood, point 3.) (b) With Children—If children have resulted from the marriage (persons of mixed blood of the second degree), they will, if they are to be treated as Jews, be evacuated or sent to a ghetto along with the parent of mixed blood of the first degree. If these children are to be treated as Germans (regular cases), they are exempted from evacuation as is therefore the parent of mixed blood of the first degree.
- (5) Marriages between Persons of Mixed Blood of the First Degree and Persons of Mixed Blood of the First Degree or Jews: In these marriages (including the children) all members of the family will be treated as Jews and therefore be evacuated or sent to an old-age ghetto.
- (6) Marriages between Persons of Mixed Blood of the First Degree and Persons of Mixed Blood of the Second Degree: In these marriages both partners will be evacuated or sent to an old-age ghetto without consideration of whether the marriage has produced children, since possible children will as a rule have stronger Jewish blood than the Jewish person of mixed blood of the second degree.

SS-Gruppenführer Hofmann advocates the opinion that sterilization will have to be widely used, since the person of mixed blood who is given the choice whether he will be evacuated or sterilized would rather undergo sterilization. State Secretary Dr. Stuckart maintains that carrying out in practice of the just mentioned possibilities for solving the problem of mixed marriages and persons of mixed blood will create endless administrative work. In the second place, as the biological facts cannot be disregarded in any case, State Secretary Dr. Stuckart proposed proceeding to forced sterilization. Furthermore, to simplify the problem of mixed marriages possibilities must be considered with the goal of the legislator saying something like: "These marriages have been dissolved."

With regard to the issue of the effect of the evacuation of Jews on the economy, State Secretary Neumann stated that Jews who are working in industries vital to the war effort, provided that no replacements are available, cannot be evacuated. SS-Obergruppenführer Heydrich indicated that these Jews would not be evacuated according to the rules he had approved for carrying out the evacuations then underway.

State Secretary Dr. Bühler stated that the General Government would welcome it if the final solution of this problem could be begun in the General Government, since on the one hand transportation does not play such a large role here nor would problems of labor supply hamper this action. Jews must be removed from the territory of the General Government as quickly as possible, since it is especially here that the Jew as an epidemic carrier represents an extreme danger and on the other hand he is causing permanent chaos in the economic structure of the country through continued black market dealings. Moreover, of the approximately 2 1/2 million Jews concerned, the majority is unfit for work. State Secretary Dr. Bühler stated further that the solution to the Jewish question in the General Government is the responsibility of the Chief of the Security Police and the SD and that his efforts would be supported by the officials of the General Government. He had only one request, to solve the Jewish question in this area as quickly as possible.

In conclusion the different types of possible solutions were discussed, during which discussion both Gauleiter Dr. Meyer and State Secretary Dr. Bühler took the position that certain preparatory activities for the final solution should be carried out immediately in the territories in question, in which process alarming the populace must be avoided. The meeting was closed with the request of the Chief of the Security Police and the SD to the participants that they afford him appropriate support during the carrying out of the tasks involved in the solution.

Source: House of the Wannsee-Conference, Memorial and Educational Site, Grossen Wannsee No. 56/58, Berlin, Germany. Available at <http://www.info@ghwk.de>. Accessed 19 November 2001.



## CHAPTER 14: ATTACHMENT

### EVENT 5: JUDGMENT AT NUREMBERG

**Overview:** The Doctors' Trial, also known as the "Medical Case," was tried at the Palace of Justice in postwar Nuremberg, Germany; that city was selected for the trial because it was where the Nuremberg Laws had been written. The trial was Case No. 1 of Military Tribunal I and was officially designated "United States of America *v.* Karl Brandt et al." The prosecutors' opening remarks were made on 9 December 1946. The trial of the 23 defendants was convened 139 times over 8 months, producing 85 witnesses, 1,471 documents, and 11,538 pages of transcript. The judgment was delivered on 19 August 1947: 16 guilty and 7 acquitted. Of those found guilty, 7 were sentenced to death, 5 were sentenced to life in prison, and the remaining 4 were given lesser sentences. The death sentences (by hanging) were carried out on 2 June 1948.

**The Legal Basis of the Trial:** The trial was conducted under US military auspices according to the Moscow Declaration on German Atrocities (1 November 1943, signed by Franklin Roosevelt, Winston Churchill, and Josef Stalin), Executive Order 9547 (2 May 1945, signed by Harry Truman), and the London Agreement (8 August 1945, signed by representatives of the United States, the French Republic, the United Kingdom, and the Union of Soviet Social Republics [the "Four Powers"]). The charter of the International Military Tribunal was drawn up, and Control Council Law No. 10 established a uniform legal basis in Germany for the prosecution of war crimes and related offenses. The law also established articles for the punishment of persons guilty of war crimes, crimes against peace, and crimes against humanity.

**The Counts of the Indictment:** The opening statement, delivered by the chief prosecutor, Brigadier General Telford Taylor, was delivered 9 December 1946. In it he detailed the medical activities covered by the counts of the indictment: (a) CRIMES COMMITTED IN THE GUISE OF SCIENTIFIC RESEARCH (High-Altitude Experiments; Freezing Experiments; Malaria Experiments; Mustard Gas Experiments; Ravensbrueck Experiments Concerning Sulfanilamide and Other Drugs [as well as] Bone, Muscle, and Nerve Regeneration and Bone Transplantation; Sea-Water Experiments); (b) EPIDEMIC JAUNDICE; (c) STERILIZATION EXPERIMENTS; (d) TYPHUS (*FLECKFIEBER*) AND RELATED EXPERIMENTS; (e) POISON EXPERIMENTS; (f) INCENDIARY BOMB EXPERIMENTS; and (g) JEWISH SKELETON COLLECTION.

**Trial Remarks of Telford Taylor:** "I pass now to the facts of the case in hand. There are 23 defendants in the box. All but three of them...are doctors. Of the 20 doctors, all but one...held positions in the medical services of the Third Reich."<sup>1(p69)</sup> "The 20 physicians in the dock range from the leaders of German scientific medicine, with excellent international reputations, down to the dregs of the German medical profession. All of them have in common a callous lack of consideration and human regard for, and an unprincipled willingness to abuse their power over, the poor, unfortunate, defenseless creatures who have been deprived of their rights by the ruthless and criminal government....The part that each of these 20 physicians and their 3 lay accomplices played in the conspiracy and its execution corresponds closely to his professional interests in his place in the hierarchy of the Third Reich...."<sup>1(p87)</sup>

#### The Defendants, the Verdicts, and the Punishments:

Name	Position	Verdict/ Punishment
Karl Brandt, MD	Personal physician to Adolf Hitler; Gruppenfuehrer in the SS and Major General in the Waffen SS; Reich Commissioner for Health and Sanitation; and member of the Reich Research Council	Guilty/ Death by hanging
Siegfried Handloser, MD	Lieutenant General, Medical Service; Medical Inspector of the Army; and Chief of the Medical Services of the Armed Forces	Guilty/ Life in prison
Paul Rostock, MD	Chief Surgeon of the Surgical Clinic in Berlin; Surgical Adviser to the Army; and Chief of the Office for Medical Science and Research under the defendant Karl Brandt	Acquitted
Oskar Schroeder, MD	Lieutenant General, Medical Service; Chief of Staff of the Inspectorate of the Medical Service of the Luftwaffe; and Chief of the Medical Service of the Luftwaffe	Guilty/ Life in prison
Karl Genzken, MD	Gruppenfuehrer in the SS and Major General in the Waffen SS; and Chief of the Medical Department of the Waffen SS	Guilty/ Life in prison
Karl Gebhardt, MD	Gruppenfuehrer in the SS and Major General in the Waffen SS; personal physician to Reichsfuehrer SS Himmler; Chief Surgeon of the Staff of the Reich Physician SS and Police; and President of the German Red Cross	Guilty/ Death by hanging

Name	Position	Verdict/ Punishment
Kurt Blome, MD*	Deputy of the Reich Health Leader; and Plenipotentiary for Cancer Research in the Reich Research Council	Acquitted
Rudolf Brandt	Colonel in the Allgemeine SS; Personal Administrative officer to Reichsfuehrer SS Himmler; and Ministerial Counsellor and Chief of the Ministerial office in the Reich Ministry of the Interior	Guilty/ Death by hanging
Joachim Mrugowsky, MD	Senior Colonel in the Waffen SS; Chief Hygienist of the Reich Physician SS and Police; and Chief of the Hygienic Institute of the Waffen SS	Guilty/ Death by hanging
Helmut Poppendick, MD	Senior Colonel in the SS; and Chief of the Personal Staff of the Reich Physician SS and Police	Guilty/ 10 years in prison
Wolfram Sievers	Colonel in the SS; Reich Manager of the "Ahnenerbe" Society and Director of its Institute for Military Scientific Research; and Deputy Chairman of the Managing Board of Directors of the Reich Research Council	Guilty/ Death by hanging
Gerhard Rose, MD	Brigadier General, Medical Service of the Air Force; Vice President, Chief of the Department for Tropical Medicine, and Professor of the Robert Koch Institute; and Hygienic Adviser for Tropical Medicine to the Chief of the medical Service of the Luftwaffe	Guilty/ Life in prison
Siegfried Ruff, MD*	Director of the Department for Aviation Medicine at the German Experimental Institute for Aviation	Acquitted
Hans Wolfgang Romberg, MD	Doctor on the Staff of the Department for Aviation Medicine at the German Experimental Institute for Aviation	Acquitted
Viktor Brack	Senior Colonel in the SS and Major in the Waffen SS; and Chief Administrative Officer in the Chancellery of the Fuehrer of the NSDAP [ <i>Nationalsozialistische Deutsche Arbeiterpartei</i> {National Socialist German Worker's Party}]	Guilty/ Death by hanging
Hermann Becker-Freyseng, MD*	Captain, Medical Service of the Air Force; and Chief of the Department for Aviation Medicine of the Chief of the Medical Service of the Luftwaffe	Guilty/ 20 years in prison
Georg August Wetz, MD	Lieutenant Colonel, Medical Service of the Air Force; and Chief of the Institute for Aviation Medicine in Munich	Acquitted
Konrad Schaefer, MD*	Doctor of the Staff of the Institute for Aviation Medicine in Berlin	Acquitted
Waldemar Hoven, MD	Captain in the Waffen SS; and Chief Doctor of the Buchenwald Concentration Camp	Guilty/ Death by hanging
Wilhelm Beiglboeck, MD	Consulting Physician to the Luftwaffe	Guilty/ 15 years in prison
Adolf Pokorny, MD	Physician, Specialist in Skin and Venereal Diseases	Acquitted
Herta Oberheuser, MD	Physician at the Ravensbrueck Concentration Camp; and Assistant Physician to the defendant Gebhardt at the Hospital at Hohenlychen	Guilty/ 20 years in prison
Fritz Fischer, MD	Major in the Waffen SS; and Assistant Physician to the defendant Gebhardt at the Hospital at Hohenlychen	Guilty/ Life in prison

\*Of these four defendants, three were employed before the Tribunal was convened, and one after, by the US military in a project called "Operation Paperclip," a government program that brought selected German scientists to America to work on research during the Cold War. Adapted with permission from Annas GJ, Grodin MA, eds. *The Nazi Doctors and the Nuremberg Code: Human Rights in Human Experimentation*. New York: Oxford University Press; 1992: 4, 63–69, 87, 105–107.

# Chapter 15

## NAZI HYPOTHERMIA RESEARCH: SHOULD THE DATA BE USED?

ROBERT S. POZOS, PhD<sup>\*</sup>

---

### INTRODUCTION

#### NATIONAL INTEREST AS A RATIONALE FOR HUMAN EXPERIMENTATION

Practical Military Questions and Concerns

Social and Political Movements

Contemporary Considerations and Questions

Uncovering the Process in Nazi Germany

#### THE NAZI HUMAN EXPERIMENTATION PROGRAM

Experimental Methods of the Hypothermia Studies

Human Dimensions of the Experimental Program

Results of the Human Hypothermia Research

#### INTERNAL KNOWLEDGE OF THE HYPOTHERMIA DATA

#### THE LEGACY OF DACHAU: THE DATA

#### SCIENTIFIC CREDIBILITY AND THE USE OF THE DACHAU DATA

Use of the Dachau Data After World War II

More Recent Use of the Dachau Data

A Futuristic Scenario: Can It Happen Again?

#### THE ENDURING LEGACY OF THE DACHAU EXPERIMENTS

#### CONCLUSION

#### ATTACHMENT: DISCOVERY OF THE DACHAU DATA

<sup>\*</sup>*Professor, Department of Biology, San Diego State University, 5500 Campanile Drive, San Diego, California 92182-4616*



"SS [Schutzstaffel (protection echelon)] Sturmbannfuehrer Dr. Sigmund Rascher (right) and Dr. Ernst Holzloehner (left) observe the reactions of a Dachau prisoner who has been immersed in a tank of ice water in an attempt to simulate the extreme hypothermia suffered by pilots downed over frigid seas. The freezing experiments were designed to establish methods of treatment for persons in a state of shock as a result of prolonged exposure to the cold. The medical experiments performed on Dachau prisoners involved the placing of the victim in a tank of ice water until he lost consciousness (70–90 minutes), followed by abrupt attempts to restore his normal body temperature by various means.... This photo is taken from a film found in the Munich home of Dr. Sigmund Rascher."

Photograph reproduced with permission from Yad Vashem, Jerusalem, Israel.  
Caption courtesy of the United States Holocaust Memorial Museum, Washington, DC.



## INTRODUCTION

Unethical experiments involving human subjects are deplorable and must never be conducted. This is clearly a standard that all scientists should vigorously support. Unfortunately, there have been many experiments in which scientists have rejected this standard, pursuing research that ultimately caused the deaths of their subjects. It is intuitive that these were unwilling subjects, whether they understood the likely outcomes of the experimentation or lacked that capacity. In many situations in which unethical experiments are conducted, no data are recoverable. The reason is obvious: The researchers know that what they are doing is unethical, and generally also illegal, and take precautions to prevent discovery.

One of the classic examples of lethal unethical scientific conduct is the human hypothermia experiments that were conducted during World War II in Germany. There were considerable military and medical concerns about the fate of German aviators who survived being shot down over the North Sea, only to perish very quickly in the frigid waters. The impetus for the hypothermia research was clearly to meet military needs, especially aviation, during the war. In a letter written on 15 May 1941 by a prominent hypothermia researcher attending a medical course, it was noted that:

During this course, where researches on high-altitude flights play a prominent part (determined by the somewhat higher ceiling of the English fighter planes) considerable regret was expressed at the fact that no tests with human material had yet been possible....The [human] experiments....are essential for research....<sup>1(p132)</sup>

Approximately 18 months later (13 November 1942), a letter was written by a member of Hitler's general staff to one of his field marshals, in which it was noted:

These researches which deal with the behavior of the human organism at great heights, as well as with manifestations caused by prolonged cooling

of the human body in cold water, and similar problems which are of vital importance to the air force in particular, can be performed by us with particular efficiency because I personally assumed the responsibility for supplying asocial individuals and criminals who deserve only to die...<sup>2(pp133-135)</sup>

This, then, was how the Nazi hypothermia and hypoxia research—in the pursuit of national interests and using available “human material”—came to be what is now seen as the ultimate example of unethical medical research. What makes the Nazi example notable is that the scientific data were recorded and carefully saved; and because they were saved, there is a dilemma that continues to confront researchers. Simply put: should the data be used?

This chapter will use the Nazi hypothermia experiments as a model for how an entire research structure within a government-sponsored war effort conducted unethical research with the aim of maintaining national security. One of the major points concerning these experiments is that they had government support and thus any one researcher could not be held solely responsible for them. Unethical scientific experiments conducted during periods in which national security is threatened have occurred in other countries as well. The well-documented US experimentation using plutonium on unsuspecting patients who were considered terminal (even though not all were, as documented in Chapter 17, *The Cold War and Beyond: Covert and Deceptive American Medical Experimentation*) indicates the lengths to which the scientific and medical communities have gone to resolve a national problem.<sup>3</sup> The rationale and execution of the Nazi-sponsored hypothermia study during a national crisis can be used as a cautionary tale for today's scientist-clinicians, politicians, and military organizations. This chapter will present various views on the appropriateness of the use of the infamous Dachau data by succeeding generations of scientists. The complex issue ultimately raises fundamental questions about the reasons for scientific inquiry.

## NATIONAL INTEREST AS A RATIONALE FOR HUMAN EXPERIMENTATION

During World War II, Nazi Germany faced a number of physiological dilemmas concerning human performance in various hostile thermal environments. Ignorance about the exact limits of human performance and endurance threatened the success of the Nazi war effort. As a consequence, the military turned to its medical and scientific or-

ganizations for answers to the new challenges Germany faced as a result of new warfare technology.

### Practical Military Questions and Concerns

The Germans, British, and Americans were developing aircraft that could fly at high altitudes. As

a result, personnel suffered from the threats of a decrease in oxygen (hypoxia), an increase in cold temperature leading to a decrease in core temperature (hypothermia), and frozen extremities (frostbite). To enhance the effectiveness of their pilots, the German Air Force (the Luftwaffe) had to arrive at various countermeasures for hypoxia and hypothermia stresses. Further, because many operations were conducted over the North Sea, Germany needed to ascertain the survival time of pilots downed in the cold waters before they died of hypothermia, as well as the most effective way to re-warm them if they were pulled from the waters still alive. The German U-boat service faced similar problems. Of the 40,000 men in the U-boat service, 28,000 (or 70%) lost their lives. Many of these deaths were due to hypothermia and drowning.<sup>4,5</sup> The practical questions that Nazi military leaders had were:

- What would be the survival time of downed pilots in the cold North Sea?
- What would be the most effective medical treatment to revive hypothermic pilots and sailors?
- What would be the best technical or mechanical way to rewarm pilots and sailors after their rescue from the North Sea?
- What kind of clothing could be designed to enhance survival in cold water?

Although unethical lethal experiments dealing with human response to hypoxia (the physiologic effects of high altitude) were also conducted at Dachau (resulting in the data being referenced by American scientists<sup>6,7</sup>), those experiments and their publication will not be evaluated in this chapter. The focus of this chapter is the immersion hypothermia experiments, their publication, and use. These experiments were a natural extension of the hypoxia experiments because pilots who flew at high altitudes could possibly be shot down over the icy waters of the North Sea.

Although the initial emphasis of the research dealing with hypothermia was on immersion hypothermia, the physiological investigation of hypothermia induced by cold air exposure became a concern as the experiments progressed. The Nazis realized the importance of the hypothermia research from a strategic point of view; indeed, this research was considered critical by Nazi administrators and scientists.<sup>8,9</sup> Heinrich Himmler, second in command after Hitler and head of the SS (*Schutzstaffel* [protection echelon]), played the key role in supporting research to answer these questions.

## **Social and Political Movements**

It should be stressed that the challenge of finding solutions to military problems must be considered in the context of many other social and political movements that were underway at that time. Racial hygiene was a worldwide movement. The use of prisoners for experiments was commonplace. Within Germany there were government programs to eliminate various subpopulations in Germany and later in the conquered territories, especially the Jewish population.<sup>10</sup> (The previous chapter has detailed the major Nazi programs during the 1930s and 1940s that resulted in the extermination of millions of people.) This lack of respect for the lives of certain groups of people, coupled with a national crisis in which the German nation itself was threatened, facilitated the rationalization for, and the implementation of, these unethical experiments. From an historical point of view, the number of published papers at that time that dealt with human responses to cold water or cold air or both was very limited. The scientific understanding of how the human body regulated its peripheral and core temperatures in cold water or cold air environments was in its infancy. The Nazis believed that they had to have this information in order to survive as a nation.

## **Contemporary Considerations and Questions**

A common contemporary response to any discussion of the German hypothermia and hypoxia experimentation is that it is history, and nothing more. It happened then, but a parallel set of circumstances could not arise in this time, especially not in a democracy. Such a response ignores the powerful allure of research in the national interest. A contemporary analogy, certainly consistent with current events involving anthrax threats and terrorist attacks, would be the effects of various biological or chemical agents, such as nerve gases, on military personnel. If modern troops had to face a hostile military force that could use lethal biological and chemical agents, among the questions that military commanders would want answered would be:

- What kind of biological and chemical agents would be used against the troops?
- What are the medical countermeasures (antidotes) that could be used?
- How effective are the technical countermeasures (chemical defense suits) to protect the troops?

- How long can soldiers stay in protective defense suits with or without antidotes in various extreme environments and still perform their military duties?

Some of these questions concerning biological and chemical agents have not yet been completely answered. To arrive at these answers, the military arm of the government undoubtedly would turn to the military medical and scientific establishment, which is composed of military officers who hold advanced degrees in medicine and science. The experiments would be carried out either in government-sponsored labs or in universities. This approach would be similar to the one used by the Germans during World War II. However, in a modern scenario in the United States, the rights of the human subjects involved would, or certainly should, be respected.

Returning to the situation in 1938, there was a dearth of information available concerning physiological responses to various cold environments. (Analysis of the scientific literature from 1930 to 1940 revealed no papers concerning human response to immersion hypothermia. Furthermore, there was no information as to the safety and efficacy of various rewarming strategies.) That information, however, was critical to rescue and treatment of the hypothermic downed German pilot in the North Sea. Equally challenging was the unexplained fact that rescued hypothermic pilots would occasionally die when they were safely on board rescue vessels.<sup>11</sup> As they studied human responses to cold environments, German scientists were striving to meet "legitimate scientific goals."<sup>12</sup>

Progress in Nazi understanding of the mechanisms of hypothermia and various rewarming treatments was detailed in secret reports submitted to Heinrich Himmler, who later had the reports buried in a cave in Germany in the waning days of the German war effort. The cache of information was discovered by American troops.

### **Uncovering the Process in Nazi Germany**

Major Leo Alexander, US Army Medical Corps, was given the task of analyzing the secret written records after their discovery. His 1946 report, "The Treatment of Shock from Prolonged Exposure to Cold, Especially in Water," also known as the "Alexander Report," contains his analyses of both the animal experiments and human experiments conducted in Dachau.<sup>13(pt24)</sup> The first part of the report, 69 pages in length, concerns his interrogation

of physicians and scientists who were involved in the animal experiments, his interpretation of the human experiments, and further interviews with German scientists and physicians. This is followed by 92 pages of description of the animal work conducted by various German scientists. An additional 62 pages concerned the Dachau human experiments. Alexander also reported on other captured German documents,<sup>14,15</sup> however, the "Alexander Report" is the major document concerning Nazi experiments that is usually referenced by the scientific community. His documentation of the organizational structure responsible for these experiments, as well as of the data from these experiments, is a singular document in the history of ethics. The "Alexander Report" became part of the Nuremberg documents used in the prosecution of Nazi war criminals. (A chronology of Alexander's meticulous investigation of the existence of the hypothermia research program is presented in Attachment 15-1.)

Alexander's straightforward analytical prose stands in stark contrast to the atrocities he reported, all conducted in the name of national interest and scientific inquiry. As I mentioned in the introductory remarks to this chapter, most studies concerning unethical experiments do not present results because most of the data are lost, destroyed, or not documented. Anecdotal information exists about many unethical experiments, for instance, the Japanese studies conducted during World War II. However, the Nazi scientists carefully recorded their data, whether they dealt with high-altitude experiments, hypothermia, or x-ray studies.

Since 1933, the Nazi government had been killing "defectives" of various categories because they considered these people unproductive and therefore costly to society.<sup>16</sup> This Nazi philosophy of "cleansing" was the basis of Himmler's support of the overt and tacit complicity of physicians and scientists in gaining scientific data from prisoners for hypothermia research. Fundamentally, what occurred in Dachau was nothing more than a logical extension of a solution to a national crisis based on the premise that certain groups of persons were expendable.

In terms of organizational structure, Himmler was responsible for the SS, while Hermann Goring oversaw the Luftwaffe. Luftwaffe personnel did not want to conduct these experiments themselves. Although Goring stated that he himself did not propose the hypothermia experiments, it is clear that he turned to Himmler for assistance.<sup>17</sup> To devise the immersion hypothermia countermeasures that it required, the military turned to the medical and scientific community through their surgeon general.

The Surgeon General for the Luftwaffe was Dr. Hippke, who worked closely with Himmler. The university responsible for conducting studies on Air Force Medicine was the University of Munich. The research program was under the direction of Dr. Georg August Weltz, a radiologist who headed up a team of physician-scientists.

Dr. Weltz, a lieutenant colonel in the Medical Service of the Luftwaffe, and Chief of the Institute for Aviation Medicine in Munich, had previously studied individual physiological responses as a way of assisting pilot selection, the goal being the selection of those best suited to withstand hypoxia. In these studies, he had used German pilots as subjects. He exposed them to a 7% oxygen-nitrogen mixture for 5 minutes. Based on how long it took pilots to develop high-altitude symptoms, he arrived at categories to describe a person's ability to adapt to low-oxygen levels. No pilots died in these experiments.

Weltz subsequently undertook the problem of how to resuscitate (ie, rewarm) German pilots who were downed in the North Sea. He used guinea pigs in his studies, rediscovering the fast rewarming method to minimize cardiovascular collapse and death in hypothermic animals that had been reported by a Russian scientist in 1894. The results of Dr. Weltz's studies were published in various German scientific journals.<sup>18</sup> Weltz and his colleagues then proceeded to study the mechanism of death due to hypothermia, as this issue was hotly disputed.

To arrive at effective medical countermeasures to hypothermia, elucidating the cause of death was important. Normal temperature of the heart, or the core of the body, is 37°C. Hypothermia is defined as a core temperature of 35°C or less. A drop in skin temperature is not used for the classification of hypothermia. One of the then current hypotheses for hypothermia-induced death was that hypothermia caused a decrease in oxygen availability at the cellular level. Another hypothesis was that hypothermia killed by decreasing the heart's ability to contract. As commonly occurs in science, there was scientific substantiation of both hypotheses.

The first of these two hypotheses was explored by Dr. R. von Werts, who was a civilian scientist. He worked with another scientist, Dr. K. Seelkopf, to study the physiology of oxygen and carbon dioxide transport. He reported the discovery of an anoxic factor in the blood of chilled animals. The second of these hypotheses was explored by another member of Dr. Weltz's team, Dr. W. Lutz. He studied the physiological responses of pigs to cold environments, and was able to demonstrate that heart

rate was slowed during body cooling, but did not stop instantaneously. He ascertained that the heart stopped at 16°C and that the effectiveness of electrical stimulation to initiate cardiac contractility ceased at 13°C. He reported that the interventions of rapid rewarming, artificial respiration, and electrical stimulation would revive the hypothermic animal. The observation that the core temperature of the body could be dropped to a temperature as low as 16°C and then be returned to its normal level of 37°C was considered an amazing fact. More important, Lutz reported that the hypothermia-induced arrest of the heart was reversible.

In addition to understanding the mechanisms causing death, Weltz's group also studied the mechanisms of rewarming. Specifically, they sought to discover at what core temperature would rewarming be most effective. They also studied the effect of ethanol on influencing the thermogenic ability of the pig. These questions were not trivial. If it was true that rewarming would be most effective at the beginning stages of hypothermia (eg, 35°C vs 30°C core temperature), then medical facilities would be able to prioritize care of hypothermic victims. The issue of ethanol intake was also important because it was generally believed that consumption of ethanol was an effective way to rewarm hypothermic victims. However, the research data suggested that ethanol did not help retain body heat when the animal was being cooled. According to Weltz, his data were sent to the German Navy for implementation. By 1942, rapid rewarming therapy was instituted as the best way to treat patients suffering from hypothermia.<sup>19</sup> Thus the German scientists were conducting experiments on animals to ascertain various physiological questions and were submitting their data to the appropriate medical and scientific journals, as well as to their sponsor—the German military.

After information had been accumulated from animal experiments, the Germans sought corroboration of these data from human hypothermia subjects. The person who played a major role in administering and conducting the human hypothermia experiments was Sigmund Rascher, a physician who had the support of Himmler. According to Himmler, writing to General Milch,

Unfortunately you had not time recently when Dr. Rascher wanted to report on the experiments at the Aviation Ministry. I had put great hopes in that report because I believed that by reporting to you, the difficulties based mainly on religious objec-



tions, which Dr. Rascher encountered in carrying out his experiment for which I assumed responsibility, could be eliminated....[H]owever, these difficulties are still the same now as before. In these "Christian medical circles" the standpoint is being taken that a young German aviator should be allowed to risk his life, but that the life of a criminal—who is not drafted into military service is too sacred and one should not stain oneself with this guilt;....There is no reason why we should get angry about these difficulties. It will take at least another 10 years until we can get such narrow-mindedness out of our people. But the research work necessary for our young and splendid soldiers and aviators must not suffer.<sup>13(pt21)</sup>

Although I stated in the beginning of this chapter that my focus would not be on the hypoxia studies, it is necessary to review the experimentation chronology involving Rascher that resulted in his having primary responsibility for the hypothermia experiments. Rascher had previously codirected the high-altitude experiments in the Dachau camp in which a number of human subjects died. Rascher had also previously petitioned Himmler to administer a series of experiments on "professional criminals" to substantiate the animal experiments.<sup>12</sup> These high-altitude experiments were conducted under an order from Himmler to Rascher, Kottenhoff, and Weltz. Weltz, however, had delayed the start of the experiments because he feared that they might be considered immoral by members of the Luftwaffe. (There had always been tension between the Luftwaffe and the SS. The Luftwaffe's view was that the SS were "criminals" and "thugs," while they were the professional soldiers.)

The experiments began when Dr. Siegfried Ruff, Director of the Department for Aviation Medicine at the German Experimental Institute for Aviation, and Dr. Hans Wolfgang Romberg, a member of the staff at the Department for Aviation Medicine, arrived at Dachau with a low-pressure chamber. The high-altitude experiments for which a low-pressure chamber was essential were conducted by Romberg and Rascher in March 1942. Although they denied in their official report that there were any fatalities associated with the pressure experiments, a letter from Mrs. Rascher requesting to take pictures of freshly autopsied persons supports an opposite view. The high-altitude fatalities allegedly occurred after Romberg was no longer responsible for the experiments and Rascher had assumed control.

With the completion of the high-altitude experiments, Rascher was now interested in continuing

hypothermia studies dealing with the human response to cold water and the efficacy of various re-warming techniques. It should be noted that these experiments were officially proposed by Hippke, the Surgeon General, and not by Rascher.

The cold water experiments were authorized on 20 May 1942 by Milch in Himmler's office and later by the Luftwaffe. The other physicians selected to conduct the study were Dr. Jarisch, from the University of Innsbruck, Professor Holzloehner, from the University of Kiel, and Professor Dr. Singer, a pathologist. Because Rascher was not considered a trained scientist, he was required to collaborate with Holzloehner and Finke,<sup>8,12,13</sup> both of whom were scientists familiar with physiological research. Holzloehner felt that because he was the key scientist responsible for directing these experiments, they would not get out of hand.<sup>8</sup>

The actual "cooling" experiments began on 15 August 1942 under the code name SENOT (Marine Emergency) and a preliminary report was signed by Holzloehner, Finke, and Rascher on 10 September 1942, along with an appendix signed only by Rascher. The report was the basis for a research session organized by the Luftwaffe health service in Nuremberg on 26–27 October 1942. Allegedly Holzloehner gave a second talk to the Wehrmach

#### **EXHIBIT 15-1**

##### **HYPOTHERMIA RESEARCH AND DOCUMENTATION GROUP**

- Dr. S. Rascher: research scientist
- Dr. Kalk, Dr. Bruhl, Mr. Pendele, Mr. Bensinger: motion picture photographers from the Air Ministry
- Mrs. Rascher: color still photographer
- Walter Neff: chief assistant to Dr. Rascher; assisted immediate post-mortem autopsies
- Helmurth Burndt: prisoner-secretary
- Franz Jonk: prisoner-attendant
- Hans Queck: prisoner-medical artist
- Frist Bromm: prisoner-laboratory assistant
- Dr. R. Pacholik: prisoner-laboratory assistant (doctor of natural sciences)
- Dr. Punzengruber: prisoner-laboratory assistant (chemist)

doctors in December. No one was reported to have voiced any comments about the experiments. This organizational silence may well have been partly due to the police nature of the Nazi government, in which those who questioned Nazi projects could be prosecuted or killed. Holzloehner claimed credit for the hypothermia experiments, and Ruff claimed the hypoxia experiments. The three scientists—Holzloehner, Finke, and Rascher—worked together from August through October; from October through May Rascher solely directed the operation. Although this research was done under the auspices of the German SS, the German Air Force (Luftwaffe)

was also involved—even though this point was denied by Goring, head of the German Air Force, at the Nuremberg trials.<sup>13(pt8)</sup> The group that studied and documented the hypothermia experimentation is listed in Exhibit 15-1. In addition, an advisory committee was constituted to review the report.<sup>8</sup>

Although clearly deplorable, the German hypothermia experimentation program was a carefully considered, constructed, and documented research effort. Only by examining this heinous program can one understand how easily individuals and organizations, responding to a national crisis, might find themselves justifying such an undertaking.

### THE NAZI HUMAN EXPERIMENTATION PROGRAM

The introductory chapter of the Holzloehner, Finke, and Rascher report presents the rationale that there was a lack of reliable information as to the proper treatment for people rescued after prolonged exposure to cold water.

Lack of clarity and confusion pervade practically all thought on this subject, especially the problem of what physical and pharmacological first aid measures should be taken. For instance it is not known whether rewarming of the rescued should be slow or fast....It is considered difficult particularly in this subject to transfer results obtained in animals to man, because even in warm blooded animals, there are fundamental differences in the mechanism of heat regulation. Furthermore, the peculiarities of the physiological events within the skin of most furry experimental animals preclude transfer of results to man.<sup>13(p7)</sup>

By the summer of 1942, the problem of pilots downed over the North Sea had been reduced to the basic components of scientific exploration: a problem worth investigating, a hypothesis or two to evaluate, and available research "material." This process occurred in a military-scientific culture that supported using whatever means were necessary, and was fueled by the pressure of national interest. What remained was to establish the experimental methods, conduct the research on selected subjects, and report the results—all standard in the everyday conduct of scientific inquiry. Each step will be addressed in turn.

#### Experimental Methods of the Hypothermia Studies

Two sets of experiments were designed and implemented. The first set determined the human

response to freezing water. The second set evaluated various rewarming techniques. All of the immersion hypothermia and rewarming experiments were conducted at Dachau, along with some initial cold-air studies.

A wooden tank lined with sheet metal and measuring 2x2x2 meters was used for the hypothermia experiments. The tank was filled with water and the temperatures were kept between 2.3°C (35.6°F) and 12°C (50°F) by the addition of ice. In the largest single series, the experimental subjects were usually dressed in flying equipment of the German aviators including a life jacket of rubber or kapok. In another set of experiments the subjects were naked.

Rectal, skin, and sometimes intragastric temperatures were measured. A special stethoscope was built to enable auscultation of the heart throughout the experiment. Electrocardiograms were not possible in the water and could only be used on those in whom the shiver response was not so great. The analyses of the following constituents of blood were carried out: blood sugar, blood concentration of chloride, nonprotein nitrogen, arterial and venous carbon dioxide, sedimentation rate, blood count, blood smear, viscosity, red cell fragility, and plasma protein. Standard constituents of urine (eg, sugar, albumin, chloride, and so forth) were also analyzed. Various rewarming methods were tested: (a) rapid rewarming by means of a hot bath, (b) rewarming by a light cradle, (c) rewarming by means of a heated sleeping bag, (d) energetic massage of the whole body, (e) packing in blankets, and (f) diathermy of the heart.

Concerning the subjects, Holzloehner told Lutz that

they had been impressed with and amazed by the marionette-like behavior and objectionless obedience shown by the prisoners. They immediately

obeyed orders without hesitation or objection such as jumping naked into ice water or standing naked in the cold for hours.<sup>20(p49)</sup>

What Holzloehner did not mention was that these prisoners had no other viable choice. They could not protest or they would be immediately killed. If they cooperated, there was at least the chance that they might survive single or even multiple experiments, as not all subjects died.

### **Human Dimensions of the Experimental Program**

The number of subjects participating involuntarily in the hypothermia experiments is not clear. It has been documented that anesthetized and conscious nonconsenting prisoners of war survived a number of experiments, although others did not. Furthermore, the use of multiple subjects for each experiment was not commonplace. Rather, a small number, and in some cases only one, was the scientific norm at that time. The priority for subject selection is reported as follows: Jewish persons, foreigners, gypsies, stateless persons, foreign Catholic priests, professional criminals, and, finally, political prisoners.<sup>13(p46)</sup> The Alexander report stated that 107 experiments were performed and at least 13 persons died. Neff, a technician who worked for Rascher, claimed that 280 to 300 subjects were involved. He further asserted that between 80 and 90 of these subjects died.<sup>21</sup> The actual number of deaths probably will never be known.

### **Results of the Human Hypothermia Research**

The results of the human hypothermia research will be presented in three categories: (1) assessing protective clothing, (2) understanding the cooling process, and (3) rewarming subjects suffering from hypothermia. Each will be discussed separately.

#### ***Clothing and Hypothermia Prevention***

What were the results of the hypothermia prevention studies that assessed aviation protective clothing? The Nazi clinician-scientists reported the following findings<sup>22</sup>:

- The efficacy of whole-body protective clothing was documented. These suits reportedly had been impregnated with chemicals that produced a foam when in contact with water. The suits were found to be effective in minimizing the fall in body temperature

of the subjects by at least 1 hour.

- Studies on the reliability of life jackets were also reported. The life jacket was worn underneath the hypothermic protective suit to keep the person more upright in the water as well as to enhance the thermal insulation by way of the air that was enclosed within them. These findings were integrated into the report that was prepared concerning the research conducted by Holzloehner, Rascher, and Hippke.

#### ***Cooling Studies***

The cooling studies documented both external and internal physiological responses of the selected subjects from entry into the frigid water until removal from it.

#### **General Observations:**

- The individual's physical state in conjunction with their clothing determined the cooling rate. Emaciated and "vasolabile" individuals experienced a faster drop in their core temperature than other subjects. The water temperature (varying between 2°C and 12°C) did not make any significant difference in the rate of heat loss. This finding was attributed to the normal variation of heat loss from subjects.
- Skin temperature fell faster than core temperature and within 4 to 5 minutes reached values between 19°C and 12°C.
- The color of the face was pale at first but then became blue after 40 to 50 minutes. The veins did not collapse and remained patent for venipuncture. These signs were an indication of the peripheral vasoconstriction of the blood vessels of the skin.
- Blood pressure could not be measured due to the marked rigidity and the muscular fibrillation.
- When the neck and occiput were cooled the loss of temperature was accelerated. This acceleration, however, had to be accompanied by whole body cooling because if only the neck and the occiput were cooled, there was only a slight loss in temperature, 0.8°C.
- Anesthetized subjects did not show any major difference from unanesthetized subjects in terms of rectal temperature drop. These experiments were conducted to answer the question of whether or not additional body heat could come from conscious

subjects (who could be presumed to be trying to keep warm through movement) compared to unconscious subjects. Although these data might seem confusing, it should be stressed that the mental state of subjects is also very important in survival situations. Subjects who apparently did not care if they survived the experiments had a very fast core temperature fall compared to those who were willing to “fight.”<sup>13</sup> (It is also possible that the unanesthetized subjects were already so emaciated that they could not generate much body heat.)

#### **Specific Results:**

- According to the Alexander Report, the viscosity of the blood increased to 7.8 when core temperature was at 35°C; blood glucose was increased by 80%–100% and did not fall until the body temperature began to rise.
- The heart rate increased upon immersion and then decreased when the core temperature reached 34°C.
- Consciousness began to cloud when the core temperature reached 31°C. The pupils became dilated and the gaze was fixed upward.
- At core temperatures between 30°C and 29°C the heart rate became irregular. This irregularity remained even after removal from the water for 1.5 to 2.0 hours. Irregularity of the “slow type” was always a predictor of death. These data demonstrated that the cause of hypothermia death was cardiac in origin.
- Death occurred at a core temperature between 25.7°C and 24.2°C. Of 7 persons who were known to have died in the hypothermia experiments, the time it took for death to occur was between 53 and 106 minutes after immersion into the tank.

#### **Rewarming Studies**

The rewarming studies focused on three approaches to regaining normal core temperature: (1) environmental rewarming, (2) body-to-body rewarming, and (3) chemical rewarming.

#### **General Observations:**

- During the rewarming phase, the core temperature continued to fall after the subject had been removed from the water.
- This “afterdrop” explained the mysterious

fact that pilots and sailors who were removed from the cold water and subsequently were rewarmed sometimes died 30 minutes or later after rescue.

#### **Results for “Environmental” Rewarming:**

- Hot baths between 40°C and 50°C were the most effective in rewarming the hypothermic subjects and reversing the afterdrop.
- Rubbing the skin by itself did not increase core temperature, but 10 minutes of exposure to hot water followed by rubbing was effective in warming the hypothermic subjects.
- Light cradle was effective in increasing core temperature but it did not heat the person uniformly and the subject might be burned.
- Diathermy was attempted only for warming the heart but was not effective. (The obvious implication of this result is that at least one of the hypothermia victims died.)
- Wrapping a person in blankets gave the least effective results (this rewarming technique works only for those who are mildly hypothermic).

#### **Results for Body-to-Body Rewarming:**

- Unwilling nude female subjects were forced (by Rascher) to lie next to hypothermic victims while the responses of the hypothermic subjects were measured.
- In some cases the responses of the hypothermic subjects were measured as they engaged in sexual intercourse with unwilling female subjects. Rascher reported that body-to-body rewarming was not very effective. (This fact is consistently overlooked; there remains the misconception that body-to-body rewarming is an effective method of rewarming hypothermia victims.<sup>23,24</sup> Fifty years later experiments were conducted that supported this initial observation.<sup>25</sup>)

#### **Results for “Chemical” Interventions:**

- Cardiac and circulatory stimulants were found to be ineffective for rewarming the hypothermic victims.
- Intracardiac injection was found also to be ineffective.
- The ingestion of ethanol before immersion did not change the rate of body cooling, and in fact the Nazi scientists felt that ethanol-induced vasodilation might augment some cardiac irregularities induced by the hypothermia. “Remedies which influence pe-



ripheral circulation are definitely not advisable.”<sup>8(p24)</sup> (There is a persistent myth that these studies reported that ethanol is an effective chemical agent to augment rewarming. This “fact” was never supported by these experiments.)

In summary, most of the data reported on human subjects had been reported already in experimental animals. These researchers could have conducted these experiments on volunteers from the Luftwaffe and dropped their core temperature by 2°C to 3°C with no chance of subjects dying and discovered most of the same information. The ra-

tionale to have the person experience cardiac arrest from the hypothermia and then to attempt various forms of rewarming was nothing more than an extension of the Nazi philosophy. According to this philosophy, because these individuals were going to die anyway, they should be used as subjects in scientific experiments to assist in the war effort. (Nazi Germany was not the only country to use prisoners as subjects in questionable medical experiments. The next two chapters in this volume will explore experimentation in Japan during the World War II era, and the exploitation of prisoners for biomedical research programs that continued until 1967 in the United States.<sup>3)</sup>

### INTERNAL KNOWLEDGE OF THE HYPOTHERMIA DATA

In early February of 1943, Hippke, who was responsible to the Luftwaffe for these studies, felt that enough satisfactory information concerning immersion hypothermia experiments had been collected. However, on February 24th, Himmler sent a note to Rascher asking him to begin cold-air experiments at Auschwitz, where the air temperature might be lower than at Dachau. At the same time, the SS was attempting to get Rascher released from the Luftwaffe, possibly so he would not be hampered by oversight from his superiors. When he discovered this attempt, Hippke wrote to his supervisor on March 6th, defending his participation in the human experiments in Dachau. He stated that if Dr. Rascher wanted to be transferred to the SS, he would not stand in his way. Rascher met with Hippke on March 12th and later stated that Hippke warned him that if he left the Luftwaffe, that he, Rascher, would be open to scientific attack because he was no longer part of the aviation research group. Whether Rascher was lying about his conversation with Hippke is not as important as the fact that both men were concerned about scientific credibility (a point that would resurface 50 years later<sup>26)</sup>.

Rascher began conducting experiments on air cooling and the effectiveness of rapid rewarming on human subjects. These experiments were a natural continuation of the immersion hypothermia experiments because Rascher wanted to evaluate whether rapid rewarming would be effective on cold-air-induced hypothermia victims. While these experiments were ongoing, Rascher sought to become affiliated with a German university, but was apparently not accepted at any university to which he applied. The University of Marburg rejected Rascher's application because the faculty could not read his thesis because it was classified “secret.” He then ap-

plied to the University of Frankfurt because a member of its faculty, Professor Dr. von Dieringshofen, was reported to be appreciative of Rascher's work. However, the secret nature of Rascher's thesis made it unlikely that either the University of Frankfurt or the University of Munich, where he next applied, would accept Rascher. Finally he turned to the University of Strassburg, which had a quorum of SS faculty who could read his secret report. The committee that was selected to review his material consisted of Dr. Stein, the Dean of the Medical Faculty; Dr. August Hirt, the Assistant Dean of the Medical Faculty; Dr. Dyckerhoff, a physiological chemist; and Dr. Gebhardt, a pharmacologist. The composition of this committee suggests that a number of influential faculty members were also SS members. There is no record as to whether Rascher was ever accepted into the faculty of any university.

Rascher and his wife were imprisoned by the SS in the spring of 1945 for unknown reasons. Rascher attempted to escape with two other prisoners but was recaptured. In April 1945, Rascher and his wife were killed by the SS, two weeks before the Allies entered Dachau. The reason for their execution is not known. Perhaps Himmler, knowing that the end of the war was imminent, wanted to eliminate Rascher so he would not testify as a witness against him or discuss the various lethal experiments that he managed. If this is true, it is indeed ironic that Himmler kept copies of all his correspondence concerning the hypothermia experiments. This correspondence was eventually uncovered by the US government. The other explanation for Rascher's death may be that Himmler discovered that Rascher was falsifying data on another project—which was considered a criminal offense. This latter allegation has been used to question the accuracy of the hy-

pothemia data. However, Rascher did not conduct the hypothermia research in isolation nor solely publish it, nor is there reason to doubt the accuracy of the hypothermia data. The fact of the matter is that Rascher was part of an organization, with goals, methods, oversight, and reports.

As in most scientific communities, Weltz's group, of which Rascher was a prominent member, was not working in isolation. The use of human subjects in the hypothermia experiments was known by other German scientists. Dr. Strughold, Professor of Physiology, University of Berlin, a colonel in the Luftwaffe as well as Director of the Airmedicine department, knew about the human experiments and stated that although he thought prisoners had been used, he disapproved of such experiments in nonvolunteers on principle.

I have always forbidden even the thought of such experiments in my Institute, firstly on moral grounds and secondly on grounds of medical ethics. Any experiments on humans that we have carried out were performed only on our own staff and on students interested in our subject on a strictly volunteer basis.<sup>13(p14)</sup>

The question that comes to mind is that if he felt so strongly, why did he not protest?

Even while both sets of experiments (human response to freezing water and evaluation of rewarm-

ing techniques) were being conducted, there was controversy. Both the quality of the science conducted by Weltz on his animal subjects, as well as the appropriateness of the human experimentation were in question. Dr. F. Rein, a premier physiologist at University of Goettingen School of Medicine, as well as an editor of *Physiological Journal*, felt that Weltz was not properly trained because he was a radiologist. He also criticized Lutz, whose experiments he thought poorly designed and hence subject to artifact. Rein himself was conducting another set of hypothermia experiments on animals. Dr. Rein was aware of the human experiments and that the main scientist was Dr. Rascher, because he had attended some seminars on the presentation of the data. He did not like Rascher and believed that the human experiments did not yield any significant new findings. There are reports as well that Italian and Japanese scientists visited Dachau,<sup>12</sup> including Rascher's facilities. Whether or not the German and Japanese scientists exchanged information is not known for certain, although the Japanese conducted human experiments concerning the mechanisms of frostbite.<sup>27</sup>

It is apparent from this discussion that although the hypothermia experiments were classified as "secret" there were a number of individuals and organizations knowledgeable about their conduct, and willing to continue providing funding, materials, and subjects for the research.

## THE LEGACY OF DACHAU: THE DATA

Again, most unethical and illegal research is conducted in such a manner that there is little, if any, evidence left for others to view. In such cases the tragedy of what was done to these unwilling subjects slips into unrecorded history. There are no remnants of the events to trouble future generations. Had it not been for Himmler's preservation of the Dachau data, the tragedy of the exploitation and subsequent deaths of prisoners of war for the hypothermia experiments would have also eventually faded into the past. The hypothermia lab had been completely destroyed be-

fore allied troops arrived at the camps. The German scientists that Alexander interviewed were aware of the seriousness of the unethical experiments as demonstrated by the fact that initially they did not divulge any knowledge about the experiments. It was only after Himmler's notes were discovered that they discussed the experiments. Thus what might have been relegated to the past instead has remained firmly entrenched in the present. The hypothermia experiments and the data that survived are a portal for a discussion of the appropriateness of using unethical data.

## SCIENTIFIC CREDIBILITY AND USE OF THE DACHAU DATA

Overall, researchers in the field of hypothermia have used and referenced the Dachau data since its discovery. The American military research community has not, it would appear, ever had much doubt about the validity and credibility of the hypothermia data that survived after the end of World War II. The research results were used then, and even more recently, as the following discussion will detail.

### Use of the Dachau Data After World War II

Immediately after the end of the war, the Dachau data were used by American scientists. The hypothermia experiments had bearing in two areas of research: (1) hypothermia effects on the entire body and (2) hypothermia feasibility in open-heart surgery. Regarding body temperature regulation, there were no research data available to American scien-

tists in the 1940s that documented human response to cold water. The human cooling curves from Dachau were subsequently compared to data from downed US military pilots who were rescued from cold water. The nonfatal portion of the Dachau data fell within the curves from the US military field data, and the data were thus considered similar.<sup>28</sup> Regarding open heart surgery, there was as yet no safe and practical heart-lung machine in the 1950s. Surgeons were investigating ways to prolong the life of the heart by using hypothermia during surgical procedures.<sup>11</sup>

The Dachau data were referenced in studies of temperature regulation<sup>11,29–35</sup> as well as in studies of the cardiovascular system.<sup>26,35,31,36–39</sup> These references demonstrate that the information gathered from the Dachau hypothermia experiments was used by scientists who were knowledgeable in the areas of temperature regulation and cardiovascular physiology to corroborate their findings.

### More Recent Use of the Dachau Data

Recently, the question has been raised as to the implications of the continued use of the data from the hypothermia experiments.<sup>40</sup> Should these data be referenced as they were in the past, should they be quietly reviewed in various laboratories, or should they just be set aside? Because these data have been referenced since World War II, the question of the appropriateness of their utilization is designed to primarily promote discussion about the use of unethically gathered data in general. To many scientists this question may seem beside the point. The common thread throughout the history of science has been the production and analysis of data. Regardless of the motivation, the data gathered are the culmination of scientific inquiry. The analysis and interpretation of the data may vary but the data stand.

From a military point of view, utility of data can be viewed from a very practical viewpoint: Will it help the troops? Will it help win the war? These questions highlight the importance of scientific inquiry, data acquisition, and ethics. If data were unethically gathered but valid then the argument is much different than if data were found to be erroneous.

Were the Dachau data debunked or severely questioned? Berger evaluates the hypothermia experiments and maintains that the experimental design was poor, the data were shoddy, and that the investigator—Rascher—was a murderer, so most of his work could not be trusted.<sup>26,41</sup> Although Rascher was not considered a trained scientist, the presence of Holzloehner and Finke established the scientific credibility of the team. (The report submitted to Himmler listed

Holzloehner as the main author,<sup>13</sup> indicating that Holzloehner had a significant role in the experiments.) Rascher was not the original proponent of these experiments; furthermore, he was aided by some very well-trained scientists. The information from these experiments was presented at different times to the Luftwaffe and Wehrmach doctors by Holzloehner.<sup>42</sup> These data were presented during wartime, as an important part of the war effort, and as such had to be considered accurate. It would seem reasonable to conclude that the Nazis considered the data valid.

What was the American view of the validity of the Dachau data? Andrew Ivy, a physiologist from the University of Chicago, was the American scientist who evaluated the data for the Nuremberg trials. In his introduction to *Doctors of Infamy*, Ivy asks: “Were the criminal medical experiments carried out in Nazi Germany of any real scientific value? As a matter of fact, they were not.”<sup>21(pxi)</sup> He then goes on to say, “So the greatest of all medical tragedies was further magnified by the fact that the experiments performed added nothing of significance to medical knowledge.”<sup>21(pxiii)</sup> However, in 1947, Ivy stated “that some of the data were obviously good.”<sup>43</sup> In 1954, Ivy wrote to J. Nestor, a pediatric cardiologist in the United States, that the Nazi studies had “some very worthwhile results” in that he felt the Nazis had studied, quite carefully, the effect of cooling on human beings. As he wrote to Nestor, “I had hoped at the time to collect all the worthwhile results and have them published.”<sup>44</sup> Ivy’s turnabout on this issue is interesting, but more importantly he did consider some aspects of the data accurate.

Were the data valueless? The evolution of the hypothermia experiments in Germany, as presented, demonstrates that the experiments were not a trivial exercise. This was a critical time for Nazi Germany as it fought for its existence. World War II was raging as these experiments were being conducted. For the German scientists to answer all the questions that are in the report by Holzloehner, Finke, and Rascher in such a short period of time demonstrates their sense of the urgency of the situation. These investigators were able to meet the standards of the time in terms of scientific reporting. In a wartime situation, minimal information is all that is required. If resources are available, a year’s solid study would be shortened to a couple of months.

Some of the initial observations gathered in Dachau have been replicated using ethical research methods. For instance, researchers recently duplicated one of the more controversial methods of rewarming, the body-to-body rewarming experiments.<sup>25</sup> The scientists stated that they were aware of the body-to-body rewarming studies in Dachau

but “these studies were grossly unethical and the results are considered invalid and unusable because of the emaciated condition of the subjects as well as questions regarding the protocol and accuracy of results.”<sup>25(p2373)</sup> In the recent set of experiments the core temperature was not allowed to drop as low as in the Dachau study, and there were appropriate safeguards. After conducting their experiments, these scientists corroborated the observations of Rascher that body-to-body rewarming is not an effective way to rewarm subjects.

The Dachau data suggested that ethanol ingestion did not affect the cooling rate of subjects. Their point was later substantiated in a study in which low concentrations of ingested ethanol (in range of legal impairment 80% to 100% or less) did not affect the cooling rate of their subjects.<sup>39</sup> In the study, the drop in core temperature was not as low as in the Nazi studies and the conditions of the subjects were well known.

Furthermore, it is inappropriate to evaluate the Dachau hypothermia data using today’s standards. Scientific reporting in 1942 met a different standard of acceptability. For example, the use of statistics to substantiate the “significance” of experimental data did not occur until after World War II. In many articles at that time, case histories or studies of small numbers of subjects were considered appropriate.

From this brief review of the use of the Nazi data after World War II, it is apparent that the data were of value to understanding the mechanisms of hypothermia, as well as to the use of hypothermia as an adjunct to open-heart surgery. Overall, from a utilitarian point of view, the data may have had value for designing hypothermia protection suits, for cardiac bypass surgery, and so forth. Does the data’s usefulness override the unethical means that were used to gather it? Indeed, if one is aware of the origin of the Dachau data, it is impossible not to visualize the emaciated subjects in the vat of iced water, attached to monitoring equipment, surrounded by a group of scientists with their assistants and cameras to document what would be a slow but painful death for unknown numbers of these prisoners. Although the Dachau data were useful in the

period after World War II, should the data have been used? That is the issue that must be addressed.

The relatives of those who were in Dachau, as well as some of the survivors themselves, are conflicted about this issue. Relatives are angered by questions about the validity of the data and concerned that its continued use is an expression of support for the Nazi philosophy that targeted certain groups for extermination. Interestingly, a small number of Dachau survivors feel that the use of the data is permissible.<sup>45</sup> To put the question of the use of the Dachau data in a modern perspective, consider the following example.

### A Futuristic Scenario: Can It Happen Again?

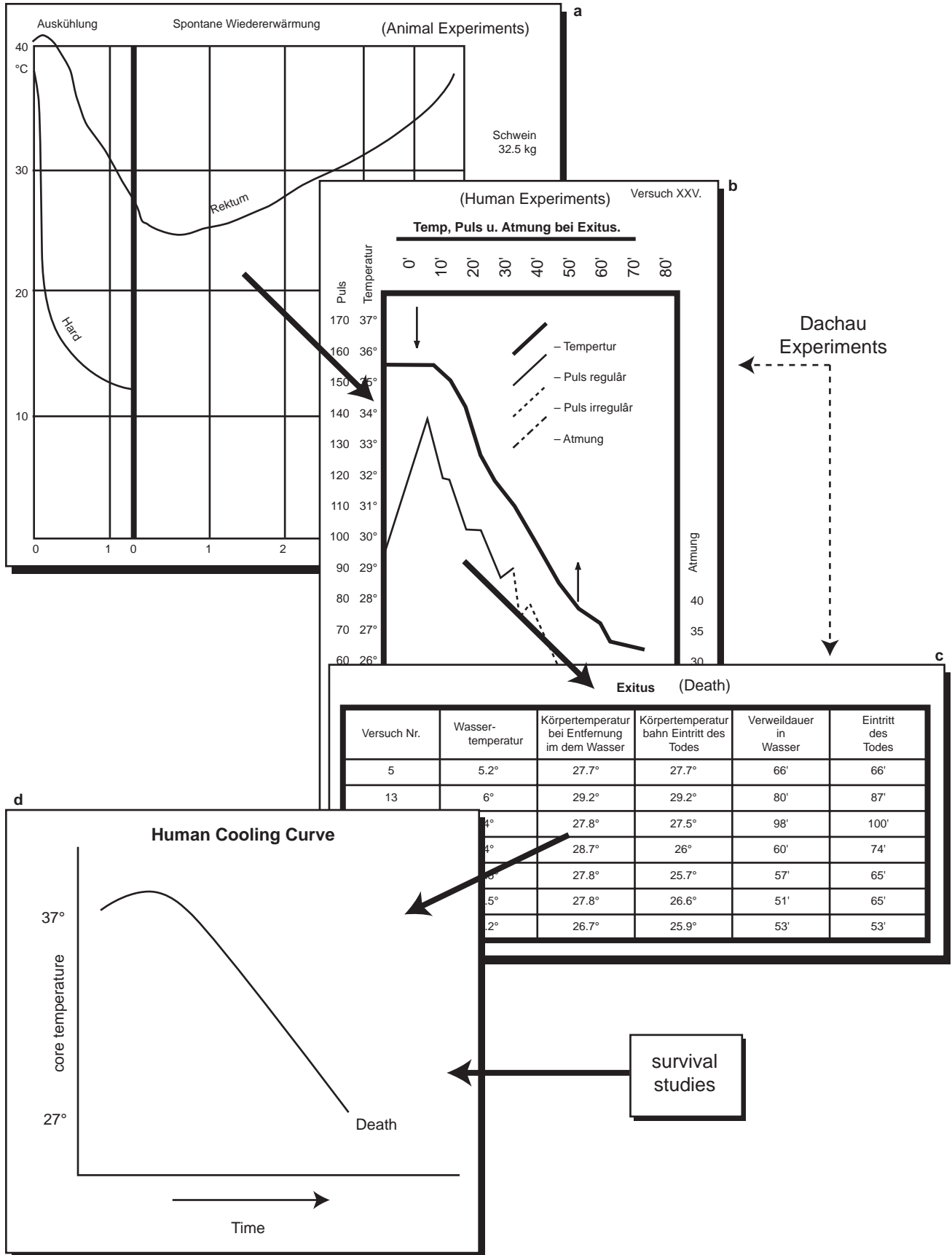
It is not inconceivable that in the future military scientists may face the following scenario. Imagine a totalitarian regime in which certain groups are considered expendable, and in which nationalism is the major thread that keeps the country together. In this hypothetical country, the research arm of the dictatorial government decides to develop biochemical agents for offensive purposes. However, to test antidotes for these agents, it uses animals and prisoners sentenced to death to understand the cause of death induced by these agents. This scenario is not improbable because the Japanese during World War II used human subjects to develop methods of spreading the plague and anthrax (as discussed in detail in Chapter 16 in this volume).

In this scenario, a report, “The Effectiveness of Various Agents on Counteracting the Effects of Nerve Agents on Humans,” is generated. The scientists who conducted these experiments were trained at universities in the United States and Europe and have access to the latest information by way of scientific meetings and the Internet. They rationalize that the prisoners who were used in these lethal experiments were destined to die and they, as scientists, are conducting these experiments to protect the sovereignty of their nation. As an American military medical officer, you are given a copy of this top secret report in which you notice that 20 people were killed. The data look reliable.

---

**Fig. 15-1.** Nazi approach to hypothermia research. The figure demonstrates the steps used by the Nazi scientists to arrive at an understanding of human response to a lethal drop in core temperature (eg, severe hypothermia). Most of the insight into the physiology of thermal-regulation in a cold environment was initially arrived at by studying results from animal experiments. It is easy to imagine the same step-by-step process being used in the unethical generation of data using fatal human experimentation. Data source: **a, b, & c:** Alexander L. *The Treatment of Shock From Prolonged Exposure to Cold Especially in Water*. Washington, DC: Office of Publication Board, Department of Commerce; 1946. Report #250.





What should be done with the report? (Figure 15-1 presents the generation of Nazi data and posits the generation of this modern hypothetical data.)

Volumes could be written on the complexity of using valid scientific data gathered by unethical means. That question, however, raises another more complex question: What is the purpose of scientific medical inquiry and how does it relate to ethics in peacetime and in war? The ultimate purpose of this inquiry is to advance the well-being of mankind. Usually scientific inquiry is expressed best by the collection, analysis, and presentation of data for scientific review and critique. It is important to realize that the pursuit of knowledge is valuable but it cannot be a goal unto itself. "Because science is not the highest value...all particular values should be subordinated. Science itself therefore as well as its research and acquisitions must be inserted in the order of values."<sup>46(p66)</sup>

An elegant quote from C.R. Honig, a professor of physiology, succinctly states what should be the standard for scientific inquiry.

The quality and heuristic value of research on human subjects depends on the ethical as well as technical qualification of the investigators and on the ethical principles set by society. Conditions in a concentration camp preclude science as we understand it. Indeed experiments conducted anywhere within an amoral society are suspect.<sup>47</sup>

This statement from a leader in the field of physiology sets a very high standard for the conduct of scientific inquiry, but it is an erroneous one. Bad ethics and bad science do not go hand-in-hand.<sup>48</sup> Unethically conducted research may be scientifically sound.<sup>48</sup> Thus a scientist may be an unethical person but still conduct scientifically sound research. The examples are many, but possibly the example of "Operation Paperclip," an American-government sponsored operation, which brought German scientists who may have been involved in unethical lethal experiments to the United States, best illustrates this.<sup>49</sup> These German scientists were needed to assist postwar America in its arms race against the former Soviet Union. Despite their unsavory reputations, they were given positions of authority in the United States due to their scientific expertise.

Another example of the complicated relationship between a person's ethics and scientific work is that of Dr. Klaus Schilling, who, at the age of 71, conducted experiments on Dachau prisoners. He was considered a world leader in malaria research and was interested in using a mild strain of benign tertian malaria, which would more than likely be non-

fatal to healthy subjects. Nevertheless, many "subjects" died as a result of his experiments. Why was such a prestigious scientist as Dr. Schilling—for whom the Schilling test is named—doing research in Dachau? What would motivate such a person? And, because of his research in Dachau, what should become of his previous work? Should it be thrown out? The military court that tried Dr. Schilling, and 39 other defendants at Dachau, took the view that "although Dr. Schilling's motive may have been sincere and purely a scientific one," his activities exemplified the Nazi schema that existed in Dachau.<sup>50</sup> The court's view, however, seems very contradictory. How could Schilling's motives have been sincere when his activities resulted in the death of subjects? More important, the statement that his work was "purely scientific" demonstrates how the court wanted to separate ethics from science. Dr. Schilling was subsequently hanged at Dachau for his activities there, along with 27 of his co-defendants.

The relationship between ethics and science has been addressed by scientist Jay Gould, in his book *Rock of Ages*. In his introductory comments he makes the following two points:<sup>51</sup>

- (1) Science and religion cannot be unified under any common scheme of explanation or analysis.
- (2) Science and religion should not experience any conflict.

What Gould is suggesting with these two points, which appear contradictory, is that science and religion should be two separate spheres, neither one influencing the other, and neither one interfering with the other. Concerning the ethics of the scientist, he asserts that a scientist must operate with ethical principles but the validity of these principles can never be inferred from the factual discoveries of science. Gould argues that there is, therefore, a false conflict between science and religion.<sup>51</sup> The real world, however, presents a more complex view than the one he espouses. Exhibit 15-2 discusses various views of the relationships between ethics, scientific inquiry, and national survival.

What is the best safeguard against a country repeating the unethical, heinous experiments of Nazi Germany? It will be impossible to monitor every scientist. There will also be scientists who will approach science with such fervor that it will lead to a repeat of the Nazi philosophy. As long as there is a disregard for the sanctity of each individual, there will be excesses. For instance, recently organs were taken from dead children without their parents'

## EXHIBIT 15-2

### CONDUCTING APPROPRIATE RESEARCH

Scientific inquiry does not, and should not, occur within a vacuum, isolated from the world it should serve. This world to be served can take several forms: ideal, real, and national crisis. What happens as one moves from the ideal world to the real world, to the very changed world that occurs during a national crisis? The ideal world can serve as a barometer for the real world in which scientific inquiry, ethics, and national security should balance each other, knowing that this balance can never be completely achieved, but striving for the better nonetheless. The real world sets the stage for the national crisis world in that it is the world from which one launches into oppressive programs deemed necessary for survival.

The constricted world of the national crisis is one in which ethics are most often challenged. The Chief Justice of the United States Supreme Court, William H. Rehnquist, noted that during a national crisis, the law is bent in the favor of the government. "One is reminded of the Latin maxim, 'inter arma silent leges.' In time of war, the laws are silent."<sup>1</sup> This speaks of the necessity of governmental dominance over civil rights during a national crisis. He goes on to say that "demands of war have outweighed the commitment of civil liberties at least while the conflict is underway."<sup>1</sup>

This is not to imply, however, that the Nazis did what they did simply because they were at war. Their society had been socialized or conditioned so that racism was tolerated and various groups were demeaned. The social solutions the Nazis arrived at were based on this philosophy that a number of scientists and military personnel supported. They did what they did because their underlying values, when confronted with the realities of wartime, allowed and even encouraged these behaviors.

Presently, the United States is at war with an elusive enemy. The threat of additional attacks is very real, but the targets and methods remain unknown. The attacks could be with a chemical, biological, nuclear, or even conventional weapon. The targets could be buildings, landmarks, infrastructure, or other systems deemed target worthy. The US response to this current threat has been to institute a number of safeguards to attempt to thwart these attacks. Only later will it become apparent whether in this time of national crisis the United States was able to retain its ethical bearings while under attack.

The ideal world, then, is that in which the three schools of thought are separate. However, a scientist is guided by his ethics as well as his political philosophy. A scientist brings to his work his ethical background, possible business ventures that are a spin-offs of patents, copyrights, and so forth. Politically the scientist will be influenced by his own leanings as well as the external environment. If the government funds research in a certain area, many scientists will move into that area because funding is available.

In the real world, however, the possible interrelationships between national survival, scientific inquiry, and ethics "tighten" or "contract" during a national crisis. In this theoretical crisis situation, national survival will take priority and will call upon scientific expertise to win the war. During such a time the scientist employed by the government may face ethical dilemmas while working to promote national security. It is important that the scientist remember that the term "bioethics" means that the sciences considered under the umbrella of biology must not only be ethically conducted, but that ethics and science are not separate.

Source: (1) Savage DG. Historically, laws bend in time of war, Rehnquist says. *Los Angeles Times*. June 15, 2002;A22.

consent at an English hospital. The chairman of the committee that studied this "organ stripping" scandal succinctly stated the case: "The past has been characterized by a type of professional arrogance—an arrogance born of indifference."<sup>52</sup> As long as there is not equal respect for all individuals and groups in a society, and general consensus of all parties involved, unethical research will continue.

In addition, the question of what is appropriate ethics has become very complicated in American society. For instance, how does a professor who

believes that abortion is a moral wrong evaluate the research of a colleague who believes the opposite? There are scientists who may have an unethical aspect to their personal lives but are recognized experts in their scientific field. What motivates well-trained educated persons to commit atrocities in the name of science? The answer is that it is more than just a personal flaw that contributes to unethical research. The University of Pennsylvania faced this difficult question in 1999 when some of its medical faculty reportedly misled a patient and his family

about the negative aspects of gene therapy, resulting in the death of the patient.<sup>53</sup> The motivation for this experiment might well have been to gain the status of being the first to evaluate a new clinical treatment or perhaps getting the necessary data to start a new gene therapy program.<sup>54,55</sup> In another example, from 1986 to 1990, 3,000 low-income pregnant women in Florida participated in an experimental program. These women were not told of the risks, benefits, or medical alternatives to the program. The University of South Florida and Tampa General Hospital agreed to jointly pay \$3,800,000 to settle the class-action suit filed on behalf of these uninformed women.<sup>56</sup>

There is no question that the kinds of experiments that a scientist pursues will be influenced by his personal ethical view. The current controversy regarding human cloning emphasizes this point. The question about human cloning is not whether the science is sound, but whether a society should have human clones. In this argument, the ethical standard of the scientist is important. Dr. Richard Seed, a Chicago scientist who is advocating these cloning studies, states the following:

I have said it many times, you can't stop science. In this particular case, we plan to organize an alternative international location [to conduct cloning experiments].<sup>57</sup>

Later in the same interview he states:

God made man in his own image. God intended for man to become one with God. We are going to become one with God. We are going to have almost as much knowledge and almost as much power as God. Cloning and the reprogramming of DNA [deoxyribonucleic acid] is the first serious step in becoming God. Very simple philosophy.<sup>57</sup>

Is his philosophy about man unethical? Or is he reflecting a segment of modern society? What kind of experiments will he conduct based on his philosophy? If scientists pursue research for its own sake, without some ethical considerations, what is to stop them from exploiting human subjects or clones to advance their understanding? Ethics seems to be the only guidepost for scientists. However, depending on one's ethical standard, it is possible that certain areas of research may not be supported. Does the United States as a society want to stop research altogether in the areas of gene therapy, gene manipulation, and cloning and all their associated positive spin-offs? Of course not. The excesses of unethical scientists should not be used as an argument against any and all research. Scientific inquiry has greatly improved the quality of most lives and most cultures. Vaccines against diseases, new technology to gain insight into the functioning of the human body, new drugs to alleviate various psychiatric diseases, and so forth, have all been the result of dedicated men and women working on various biomedical research questions.

## THE ENDURING LEGACY OF THE DACHAU EXPERIMENTS

The real legacy of the inhumane experiments of Dachau is a heightened awareness of the roles of science and medicine in society, especially during periods of national security threats. It is important to understand the degree to which scientists may be motivated by intense patriotism, and how this emotion can influence their decisions. During the Persian Gulf War, for instance, I was part of a Navy-sponsored research team that evaluated the human performance of Navy and Marine subjects wearing chemical defense ensembles and microclimate cooling systems. All subjects signed human subject release forms. Each subject wore a protective suit that enclosed his entire body. Underneath this ensemble he wore his "flak" jacket. In addition they carried 70 pounds on their backs plus their rifles. They walked at 3.5 mph in a room that was set at 120°F and 10% humidity to match the desert environment. We evaluated the efficacy of various cooling devices that the men might use in the desert battlefield. Physiological measurement of skin and core temperature, heart rate, and blood pressure were col-

lected. The experiments were stopped either when the subjects requested it or when certain predetermined physiological points were reached. None of the subjects experienced any negative reactions.

It was very easy to become caught up in the intensity and necessity of the research program: This was no academic experiment. These men were going to war and we were part of a national effort to protect them from chemical weapons that Iraq reportedly held. In the midst of the research effort, the old expression that "desperate times call for desperate measures" came to mind. I was especially impressed by my own urge to do as much as possible for the future safety of the troops in the theater of operations.

Thus it would be a fallacy to consider the extreme unethical behavior of Nazi scientists and physicians to be a unique historical occasion, which therefore could not recur. The fact that national emergencies will arise from time to time is inescapable. For military scientists who will be faced with similar situations in the future, consider this question from Jay Katz: "How much harm can be inflicted on human



subjects of research for the sake of medical progress and national survival?"<sup>58</sup>

The following quote elegantly states the case:

These (Dachau) experiments happened because science rationally devalued human beings to the point where their only value was as physiological or anatomical specimens. Suffering and death were not considered because the subjects' lives were defined as useless.

Tragically, medicine has a history of racism and tolerance of inequality. The evils of the Nazi period became possible because of the professional and scientific acceptance and institutionalization of inequality. When human beings are given differential value then we are all vulnerable. The Dachau data is [sic] really irrelevant. What is relevant is medicine and science's placing differential value on human life. If we permit the continued acceptance of the consequences of that evil, then we are all at risk.<sup>59</sup>

## CONCLUSION

Nothing can be more challenging than attempting to reconcile the needs of a nation during wartime with the personal rights of its citizens. The concept that individuals have inviolate rights is rather new in the history of mankind. Although many organizations espouse individual rights and dignity, nevertheless racism, sexism, and bigotry of all kinds are found in every country. In a military situation, the rights of servicemen must be subordinated to the effectiveness of the military effort. Even in this environment, however, the military and government cannot completely abandon the freedoms that make a country worth defending. Likewise, scientific research during military crisis must be conducted in an atmosphere of moral values that acknowledge the dignity of each individual. An eloquent quote from Han Jonas, a German Jew who fled the Nazis and sought to build the foundation of an ethics for the technological ages, states the case:

Let us not forget that progress is an optional goal, not an uncompromising commitment. A slower progress in the conquest of disease would not threaten society, grievous as it is to those who have to deplore that their particular disease be not yet conquered, but that society would indeed be threatened by the erosion of those moral values whose loss possibly caused by too ruthless a pursuit of scientific progress, would make its most dazzling triumphs not worth having.<sup>60</sup>

To use the Dachau data reinforces the Nazi philosophy that there is a differential value amongst human beings. These data should not be used as any kind of scientific benchmark because this use would imply that the human subjects who were killed were only used as physiological entities, not human beings.

What about the future? The legacy of Nazi-sponsored research is to continually remind us that the global community has a long way to go to achieve

a genuine respect for individual rights. The establishment of minority programs, women's programs, and the like in this country to achieve some equity for these groups was based on the fact that various groups had been systematically excluded from mainstream society.

A scientist brings to his inquiry his ethics, culture, and scientific curiosity. To attempt to exclude his ethics and culture from the research would result in unfeeling and unthinking robots that generate data without considering the consequences. To paraphrase Cardinal Newman, "The test of science lies not in what people discover, but in what they are."

For the future, military scientists must be on the alert for potential areas of research that demand a "quick fix" during a national crisis. To use data gathered from any unethical situation will continue to emphasize the differential value of human life. The acceptance of this fact will lead to a data-demanding, amoral society that will threaten moral culture and make all people vulnerable. For the military scientist and officer, the perspective of an officer after the 1991 Iraqi War is germane. In an article titled "Overwhelming Force: What Happened in the Final Days of the Gulf War?," Seymour Hersch presents his perspective on the events and subsequent inquiry dealing with the deaths of Iraqi soldiers after the truce.<sup>61</sup> James Manchester, who had "described...an incident in which both Iraqi prisoners and his Scout platoon had been fired upon by fellow-soldiers in a battalion task force,"<sup>62(p82)</sup> offers a general statement that should be remembered as an admonition to military officers and scientists: "There [have]...to be limits, even in war. Otherwise the whole system [society] breaks down."<sup>62(p82)</sup> This can be summarized, as Moe did so eloquently: "Knowledge, although important, may be less important to a decent society than the way it was obtained."<sup>63(p7)</sup>

## REFERENCES

1. Stein S, trans. Partial translation of document 1602-PS. Letter from Dr. Rascher to Himmler requesting use of prisoners for high altitude experiments. Source: *Nazi Conspiracy and Aggression*, Vol. 4. Washington, DC: US GPO; 1946.
2. Stein S, trans. Translation of document 1617-PS. Letter from Himmler to General Field Marshal Milch concerning transfer of Dr. Rascher to the Waffen-SS. Source: *Nazi Conspiracy and Aggression*, Vol. 4. Washington, DC: US GPO; 1946.
3. Welsome E. *The Plutonium Files: America's Secret Medical Experiments in the Cold War*. New York: Random House; 1999.
4. Deighton L. *Blood, Tears, and Folly: An Objective Look at World War II*. New York: Harper Collins; 1993.
5. Paton B. Cold, casualties, and conquests: The effects of cold on warfare. In: Pozos RS, ed. *Section II: Cold Environments*. In: Pandolf KB, Burr RE eds. *Medical Aspects of Harsh Environments*. In: *Textbooks of Military Medicine*. Washington, DC: Office of The Surgeon General, US Department of the Army and Borden Institute; 2001: 311–349.
6. Webster AP, Reynolds OE. High altitude, high velocity flying with special reference to the human factors. *J Aviation Med*. 1950;21(3):237–245.
7. Webster AP, Reynolds OE. *Time of Consciousness During Exposure to Various Pressure Altitudes*. Bureau of Medicine and Surgery. Navy Department. 7 August 1946.
8. *Trials of War Criminals Before the Nuremberg Military Tribunal*. Part 3. London: His Majesty's Stationery Office; 1946.
9. *Trials of War Criminals Before the Nuremberg Military Tribunals Under Control Council Law No. 10*. Vol 1. 1949: 197–278.
10. Katz J. *Experimentation With Human Beings*. New York: Russell Sage Foundation; 1979: 733–734.
11. Golden FStC. *Physiological Changes in Immersion Hypothermia With Special Reference to Factors Which May Be Responsible for Death in the Early Rewarming Phase* [dissertation]. Leeds, England: University of Leeds; 1979.
12. Berben P. *Dachau: The Official History 1933–1945*. London: Norfolk Press; 1968.
13. Alexander L. *The Treatment of Shock From Prolonged Exposure to Cold Especially in Water*. Washington, DC: Office of Publication Board, Department of Commerce; 1946. Report #250.
14. Alexander L. Medical science under dictatorship. *N Engl J Med*. 1949;241(2):39–47.
15. Alexander L. *Methods of Influencing International Scientific Meetings As Laid Down by German Scientific Organizations*. Washington DC: Office of the Publication Board, Department of Commerce. Report 522. [no date; circa 1947.]
16. Caplan AL. How did medicine go so wrong. In: Caplan AL, ed. *When Medicine Went Mad: Bioethics and the Holocaust*. Totowa, NJ: Humana Press; 1992: 53–92.
17. The Trial of the German Major War Criminals (Part 22). 22nd of August 1946 to 30th September 1946. Nuremberg Trials.
18. Weltz GA, Wendt HJJ, Ruffin H. *Erwärmung nach lebensbedrohender Abjühlung, Münchener medizinische Wochenschrift*. Nr. 52: 1092.
19. *Medical Advisor for Submarines*. Published from German Naval Supreme Command. Berlin 1944. Bundesarchiv-Militärarchiv. Freiburg RMD 8/276.
20. Proctor RN. *Racial Hygiene: Medicine Under the Nazis*. Cambridge, Mass: Harvard University Press; 1988.
21. Mitscherlich A, Mielke F. *Doctors of Infamy: The Story of the Nazi Medical Crimes*. New York: Henry Schuman; 1949.

22. Hegnauer AH. Lethal hypothermic temperature for dog and man. *Ann NY Acad Sci.* 1959;80:315–319.
23. Bangs CC. Treating hypothermia. In: Wilkerson JA, ed. *Hypothermia, Frostbite and Other Cold Injuries*. Seattle, Wash: Mountaineers; 1986: 54–56.
24. Collis, ML. Treatment of the hypothermic victim. In: Greene B, ed. *Cold Water Symposium*. Toronto: Royal Life Saving Society of Canada; 1976: 31–32.
25. Giesbrecht GG, Sessler DI, Mekjavic IB, Schroeder M, Bristow GK. Treatment of mild immersion hypothermia by direct body-to-body contact. *J Appl Physiol.* 1994;76(6):2373–2379.
26. Berger RL. Nazi science. In: Caplan AL, ed. *When Medicine Went Mad: Bioethics and the Holocaust*. Totowa, NJ: Humana Press; 1992: 109–133.
27. Thompson AT. *Report on Japanese Biological Warfare (BW) Activities, 31 May 1946*. Army Service Forces. Camp Detrick, Frederick, Md: 2. 4-6. Fort Detrick Library Archives.
28. Molnar GW. Survival of hypothermia by men immersed in the ocean. *JAMA.* 1946(Jan 27);131:1046–1050.
29. Harrington LP. The range of physiological response to climatic heat and cold. In: Newburgh LH, ed. *Physiology of Heat Regulation and the Science of Clothing*. New York: Hafner Publishing; 1968: 262–275.
30. Adolph EF, Molnar GW. Article on temperature regulation [title not available]. *Am J Physiol.* 1946;146:507–537.
31. Burton AC, Otto GE. *Man in a Cold Environment: Physiological and Pathological Effects of Exposure to Low Temperatures*. New York: Hafner Publishing; 1969.
32. Covino BG. Some observations on ventricular fibrillation in acute hypothermia. In: Irene M, ed. *Cold Injury*. New York: Ferrar; 1958: 135–159.
33. Felix R, Rosenhain KE, Penrod KE. Blood gas studies in hypothermic dogs. *Am J Physiol.* 1951;166:55–61.
34. Steinman AM, Hayward JS. Cold water immersion. In: Auerback PS, Geehr EC, eds. *Management and Wilderness and Environmental Emergencies*. St. Louis, Mo: Mosby; 1989: 77–100.
35. Wayburn E. Immersion hypothermia. *Arch Intern Med.* 1947;79:77–91.
36. Molar AC. Survival of hypothermia by men immersed in the ocean. *JAMA.* 1946;131:1046–1051.
37. Bigelow WG, Lindsay WK, Greenwood WF. Hypothermia: Its possible role in cardiac surgery: An investigation of factors governing survival in dogs at low body temperature. *Ann Surg.* 1950;132(5):849–866.
38. Hegnauer AH, Flynn J, D'Amato H. Cardiac physiology in dogs during rewarming during deep hypothermia. *Am J Physiol.* 1951;167:69–71.
39. Fox GR, Hayward JS, Hobson GN. Effect of alcohol on thermal balance of man in cold water. *Can J Physiol Pharmacol.* 1979;57:860–865.
40. Pozos RS. Scientific inquiry and ethics: The Dachau data. In: Caplan AL, ed. *When Medicine Went Mad: Bioethics and the Holocaust*. Totowa, NJ: Humana Press; 1992: 95–108.
41. Berger RL. Nazi science: The Dachau hypothermia experiments. *N Engl J Med.* 1990;322(20):1435–1440.
42. Beecher HK. Ethics and clinical research. *N Engl J Med.* 1966;274(24):1354–1360.
43. Ivy AC. Nazi war crimes of a medical nature. *Fed Bull.* 1947;33:133–147.
44. Letter to JO Nestor, MD from AC Ivy, PhD, MD, University of Illinois, 1954.

45. Letter to RS Pozos from HK Beecher, author of *Experimentation in Man*. Springfield, Ill: Charles C Thomas; 1965.
46. Pope Pius XII. The moral limits of medical research and treatment. In: Beecher HK, *Experimentation in Man*. Springfield, Ill: Charles C Thomas; 1965.
47. Letter to RS Pozos from CR Honig, Professor of Physiology, University of Rochester, August 1988.
48. Angell M. The Nazi hypothermia experiments and unethical research today [editorial]. *N Engl J Med*. 1990;322(20):1462–1464.
49. Bower T. *The Paperclip Conspiracy: The Hunt for the Nazi Scientists*. Boston: Little Brown & Company; 1987.
50. Mellanby K. *Human Guinea Pigs*. London: Merlin Press; 1973.
51. Gould SJ. *Rock of Ages: Science and Religion in the Fullness of Life*. New York: Ballantine Publishing Group; 1999.
52. Professor Ian Kennedy. As quoted in: Doctors “arrogant” over organ stripping. BBC News Health Section, Wednesday, 10 May 2000. Available at: <http://news.bbc.co.uk/2/hi/health/743221.stm>; accessed 25 July 2002.
53. Stolberg SG. Scientists defend suspended gene therapy. *New York Times* (on the web). 15 February 2000.
54. Recer P. Accusations in gene therapy death. Available at: [http://home.earthlink.net/~exonews/genetics/gene\\_therapy\\_death.htm](http://home.earthlink.net/~exonews/genetics/gene_therapy_death.htm). Accessed 17 July 2002.
55. Stolberg SG. FDA officials fault Penn team in gene therapy death. 9 December 1999. Available at: <http://www.humangenetherapy.com/french/history/fda.pdf>. Accessed 17 July 2002.
56. Associated Press, *The San Diego Union Tribune*, 12 March 2000.
57. Richard Seed. (Chicago scientist). Interview with National Public Radio, 6 January 1998.
58. From comments made by Jay Katz at a symposium commemorating the 50th anniversary of the Nuremberg Doctors Trial. Washington, DC: United States National Holocaust Memorial Museum; 1996.
59. Letter to RS Pozos from WE Seidelman, MD, Associate Professor, Department of Family Medicine, McMaster University, 28 June 1989.
60. Jonas H. *The Imperative of Responsibility: In Search of an Ethics for a Technological Age*. Chicago: University of Chicago Press; 1984.
61. Hersch S. Annals of war: Overwhelming force: What happened in the final days of the Gulf War? *The New Yorker*. 22 May 2000;49–82.
62. Manchester J. Quoted in: Hersch S. Annals of war: Overwhelming force: What happened in the final days of the Gulf War? *The New Yorker*. 22 May 2000;49–82.
63. Moe K. Should the Nazi research data be cited? *Hastings Cent Rep*. 1984;14(6):5–7.



## Chapter 15: ATTACHMENT

### DISCOVERY OF THE DACHAU DATA

Within the thousands of items that were part of the Nuremberg Doctors Trial is a fascinating document, the “Alexander Report,” that details how Major Leo Alexander, Medical Corps, United States Army, uncovered the data pertaining to the experiments at Dachau. Had it not been for the persistence and thoroughness of Dr. Alexander and his team, it is likely that the Dachau experiments would not have been fully disclosed or prosecuted. This attachment lists the chronology of Dr. Alexander’s discovery process over a period of approximately 3 weeks, as recounted in Alexander L. *The Treatment of Shock From Prolonged Exposure to Cold Especially in Water*. Washington, DC: Office of Publication Board, Department of Commerce; 1946. Report #250.

- (No date given.) Interview of Dr. Wertz (Munich) pertaining to his studies dealing with cold (motivated by the Battle of Britain), as well as his guinea pig studies on hypothermia. Dr. Alexander learned that studies were also conducted by Wolfgang Von Wertz, assisted by Ms. Gertrud Schumacher, to determine whether anoxia and hypothermia shared common mechanisms. (Dr. Alexander had seen a water color painted by Dr. Von Wertz, which depicted the physical circumstances under which these experiments had been performed, hanging in a small room in the institute. This observation appears to have reinforced his suspicion that human experiments had occurred.)
- 5 June and 6 June 1945. Interview of Dr. Lutz, during which Dr. Alexander was shown devices for cooling animals, followed by a lengthy discussion concerning how to minimize rewarming death by using high levels of oxygen. During these conversations Dr. Lutz stated that he knew of no experimental studies on humans in which the application of his animal studies had been applied. Dr. Lutz stated that Dr. Wertz had made a suggestion to the Luftwaffe and the German Navy to use rapid rewarming for emergency resuscitation of the hypothermic person. Dr. Lutz wanted to see if artificial respiration could prevent rewarming death. He did not have experimental human data but had large animal data, specifically that from adult pigs. Dr. Alexander wanted to go to the site where the pig research was conducted. He was told that it was far away (6 miles); he responded that it wasn’t far by Jeep.
- (No date given.) Drs. Alexander, Lutz, and Wertz go to Gut Hirschau, a government-owned experimental agricultural station, where library facilities, x-ray, and ample rooms for study were available. There was no equipment available for large animal studies as there was for small animal studies in Wertz’s facility. After repeated inquiries from Dr. Alexander about seeing the equipment and procrastination by Drs. Wertz and Lutz, Dr. Alexander was shown some partly cracked wooden tubs in a shed behind the stable. Drs. Lutz and Wertz stated that after the experiments, the equipment was partly disposed of, used elsewhere, or thrown away. After Drs. Alexander, Lutz, and Wertz returned from the pig shed, they were joined by Drs. von Wertz and Seelkopf (where is not clear). A number of research papers were “turned over “ to Alexander dealing with pig studies, which were not yet published, showing that ethanol in the pigs did not increase or decrease body warmth loss. Dr. Wertz discussed that in the future, a watertight garment will be the method to minimize hypothermia deaths. Movement in the suit would increase the warmth of personnel who are in the watertight suits. Dr. Wertz also discussed physiological consequences due to rewarming of hypothermic guinea pigs and submitted data showing that rapid rewarming was better than slow rewarming in guinea pigs. He was asked by Dr. Alexander whether or not his ideas, theories, practices, and recommendations were applied to humans. He answered that the Navy had stated that the results from his methods were excellent, but that he had not seen any figures (data). The German Air Force in France had made similar observations and they had reported these findings to him. Dr. Wertz was asked to find those reports. Wertz produced a file with Photostats of case histories. These case histories had been done using older and more orthodox methods of rewarming, such as heated blankets, rubbing, and ingestion of alcohol. The vast majority were RAF (Royal Air Force) pilots who had been rescued by the German Air Force Sea-Rescue Service. Dr. Wertz was asked to find files in which his method of rapid rewarming had been used. He could not produce any. He was asked in front of a group if he knew of any experimental work conducted using human beings. He denied knowing of any.
- (No date given.) In a private meeting between Drs. Alexander and Wertz, Dr. Wertz was asked this question again with no witnesses and he denied knowing of any human experiments. This interview without witnesses was held at Dr. Wertz’s request primarily for Dr. Wertz to ask whether he should close the Institute or possibly continue his research under auspices of the US government or an American research organization such as the Rockefeller Foundation. He was told that no plans could be formulated at this time, but that he should keep everything together to give full information to other investigators and to hope for the best. Dr. Alexander left the meeting with the conviction that human research had been done. He based his conclusions on: (a) no instruments were found for large animal studies (ie, the adult pig studies), but there was

ample equipment where small animal research had been conducted; (b) Dr. Weltz could not produce any human data for rescued subjects being treated using his method, which suggested to Dr. Alexander that the data were being withheld for a reason; and (c) Dr. Weltz, in his private interview with Dr. Alexander, wanted to dissolve the institute, which would make it easy to dispose of or hide data. Dr. Alexander felt that Dr. Weltz was trying to maneuver him to order the institute to be dissolved. He decided not to arrest anyone at this point, but rather to hide his suspicions from Dr. Weltz while he gathered additional information.

- 14 June 1945. Dr. Alexander had dinner with Lieutenant Bigelow, an Army Chaplain. Lieutenant Bigelow wanted to find out about experiments on human beings that had been performed in the Dachau camp. He had heard of these experiments from a broadcast over Allied Radio of ex-prisoners who told of their experiences. Lieutenant Bigelow told Dr. Alexander that he was horrified that subjects had been placed in vats of cold water and electrical measurements taken of their response to the cold. These experimental methods were very similar to what Dr. Alexander had heard about from Dr. Weltz concerning his guinea pig studies. Dr. Alexander asked Lieutenant Bigelow if the name of the experimenter in the Dachau studies was given. Lieutenant Bigelow responded that a name had been given but he had forgotten what it was.
- 16 June 1945. Dr. Hubertus Strughold was questioned about human experimentation. He knew about the experiments from a meeting that was held in Nuremberg in 1943. (Dr. Alexander noted in his report that the meeting was held in October 1942). Dr. Rascher was the main investigator who was mentioned over the Allied Radio broadcast. Dr. Strughold had thought that convicts were used but he still disapproved of the studies. Dr. Rein, Professor of Physiology, was also questioned. Dr. Rein thought that the data gathered by Drs. Weltz and Lutz were somewhat amateurish. Dr. Rein gave Dr. Alexander a list of publications dealing with cold physiology. He also acknowledged that Dr. Rascher performed human experiments. Dr. Rascher had presented his data at Nuremberg and subsequently boasted to Dr. Rein that he (Dr. Rascher) did the only human work concerning hypothermia. Dr. W. Noell was also questioned regarding electrophysiological changes associated with cold; there was no questioning concerning human experiments. Dr. A. Kornuller was also questioned; he vouched for Dr. Noell and confirmed that human experiments had been carried out by Dr. Rascher. Dr. Alexander also learned from Dr. Rein that Dr. Rascher worked for the SS (*Schutzstaffel* [protection echelon]). Dr. Alexander then decided to look for additional materials on Dr. Rascher in any SS documents that had been located.
- 18 June 1945. Dr. Alexander went to the 7th Army Document Center because he had heard that Himmler's cave depository of SS materials (in Hallein, Germany) had been discovered. Vast quantities of secret SS records had been recovered. A number of persons helped Dr. Alexander gather the data from the cave dealing with human experimentation. Data recovered from the cave extended from 31 October 1939 until March 1944 and detailed, with voluminous documentation, Himmler and his obsessive nature, as well as letters from the Raschers. Both Dr. Rascher and his wife had an extensive relation with Himmler. Analysis of the data from the cave revealed the timeline: Dr. Rascher proposed his idea for experiments (15 May 1941); Himmler authorized experiments; Drs. Rascher, Kottenhoff, and Weltz were put in charge (24 July 1941); experiments began (March 1942); and a report was published (28 July 1942 [not the hypothermia report, but rather a report titled "Salvage from High Altitudes"]). Additional experiments were authorized on 20 May 1942, with Dr. Weltz put in charge and Dr. Rascher working for him. Dr. Rascher proposed the hypothermia experiments (15 June 1942); hypothermia experiments began (15 August 1942). The initial report was submitted 10 September 1942. On 3 October 1942, Dr. Rascher stated that all of the experiments were completed except for the human warmth studies. (He complained that Dr. Weltz was being an obstructionist and was delaying his research. Dr. Weltz wanted a Russian prisoner of war so he could do his own experiments.) Dr. Rascher submitted the final report to Himmler on 16 October 1942. Himmler acknowledged receipt of the report on human hypothermia experiments on 27 December 1942.
- (No date given.) Dr. Alexander reinvestigated Weltz's Institute and interrogated Dr. Lutz while an American lieutenant was present. Dr. Lutz admitted that Dr. Weltz had been finding personnel to work on experiments in Dachau but Dr. Lutz said he was "too soft." Dr. Lutz turned over to Dr. Alexander a printed preliminary report that Dr. Holzlohner had presented at Nuremberg in 1942. He said that neither he nor Dr. Weltz had the final copy. Dr. Alexander returned some miscellaneous reports to Dr. Lutz. He asked him if he had been a member of the SS, and Dr. Lutz replied that he had been since 1936 but that he had gradually withdrawn from active participation. Dr. Alexander convinced Dr. Lutz to tell all he knew about the hypothermia experiments. Dr. Lutz mentioned that he had had conversations with some of the other researchers who conducted some of the experiments: Drs. Romberg and Holzlohner. They stated how impressed they were that the subjects had "objectionless obedience." Dr. Lutz did not think that Dr. Weltz had anything to do with the experiments. Dr. Lutz described to Dr. Alexander his personal encounter with Dr. Rascher, as well as second hand accounts of the experiments and Himmler's relationship with the Raschers. Dr. Lutz was asked if he had a final copy of the report and he stated that he was unable to get one because of its secrecy. He was able to get bits and pieces of information from Dr. Holzlohner.
- (No date given.) Dr. Alexander went to Dachau to meet with former prisoners.

- 22 June 1945. Dr. Alexander returned to the 7th Army Document center, where a complete copy of the final report by Drs. Holzlohner, Rascher, and Finke and an addendum submitted only by Dr. Rascher had been located. Dr. Alexander did not go back to talk to Dr. Weltz.

At this point Dr. Alexander concluded that he had assembled the necessary timeline and evidence to prosecute these researchers for the human hypothermia experimentation program at Dachau.





# Chapter 16

## JAPANESE BIOMEDICAL EXPERIMENTATION DURING THE WORLD-WAR-II ERA

SHELDON H. HARRIS, PhD<sup>\*</sup>

---

### INTRODUCTION

### DIMENSIONS OF THE PROBLEM

### WHO KNEW?

- The Medical and Academic Professions
- The Japanese Military
- The Japanese Government

### HISTORICAL CONTEXT AND NATIONALISTIC RACISM

- Nationalistic Racism and Militarism
- The Emergence and Power of Secret Military Societies
- The Influence of Militarism on Military Medicine in Japan

### GOVERNMENT-SPONSORED BIOMEDICAL RESEARCH

- Ishii Shiro and the Origin of Japanese Biomedical Programs
- The Establishment of the Ping Fan Research Facility
- Other Biomedical Research Facilities in Occupied Territories
- Biological Warfare Laboratory Experiments
- Biological Warfare Field Tests

### “FREE-LANCE” MEDICAL PROCEDURES AND EXPERIMENTS ON PRISONERS OF WAR

- Procedures for Medical Training Purposes
- Experiments for Research Purposes
- Vivisection and Immediate Postmortem Dissection

### POSTWAR DEVELOPMENTS

- Prosecution of Japanese War Criminals
- The Postwar View of Japanese War Crimes
- American Interest in Japanese Research Results
- Postwar Medical Careers of Japanese Biowarfare Personnel

### JAPAN IN THE 21ST CENTURY

### CONCLUSION

### ATTACHMENT: PHOTOGRAPHS FROM PING FAN MUSEUM

<sup>\*</sup>Formerly, Director, Institute for Social and Behavioral Sciences, California State University, Northridge; formerly, Director, People's Republic of China–United States Faculty and Student Exchange, California State University, Northridge; Professor Emeritus of History, California State University, Northridge, California (Dr. Harris died 31 August 2002)



“Bacili pestis were injected into human bodies for observing the course of pathological changes.” This painting is part of an exhibit found in the Ping Fan Museum, Harbin, China. The hypodermic in the physician’s hand (forefront of the artwork) both literally and figuratively illustrates the breakdown of medical ethics in the biowarfare program in wartime Japan. Rather than using the hypodermic to treat disease, these physicians used it to initiate disease for the sole purpose of gaining information to further the use of disease as a weapon—the very antithesis of the medical profession.

Photograph of painting (including captions) from displays at the Ping Fan Museum, Harbin, Manchuria, China, from the collection of Sheldon Harris.

## INTRODUCTION

I am a war criminal. I served in Manchukuo, that phony country created by Japan...[As an officer in the Kempeitai, the Japanese secret police in Manchuria] I received orders from my unit commander to send four of the arrested men to Unit 731. At the time I had no sense that I was a party to any killing. I only filed the papers and sent the men to Unit 731.<sup>1</sup>(pp200–201)

Subjects had to be dissected before death for our purposes, because with time bacteria would make the body rot.<sup>2</sup>

I did it [performed vivisections] because I thought I was serving the Emperor. At first I felt very bad, but after a few operations I got used to it. What is scary, is that I don't get nightmares.<sup>3</sup>

The logs [human research subjects] were there for experimental purposes. There was no guilt associated with the process. I take pride in having taken part in this work. I have no regrets. It was war.<sup>4</sup>

At the beginning he looked intelligent and had fair skin; at the terminal stage [of an experiment on plague] he looked different and his skin turned black.<sup>5</sup>

Atrocities, including those committed by military medical personnel, occur in every modern war. World War II is a classic example. Virtually every participating country was responsible for atrocities committed by their armed forces. But Germany and Japan, alone among the combatants, employed extensive biomedical research using large numbers of involuntary human subjects. These experiments ultimately led to the deaths of thousands of people.<sup>6–15</sup> (Although there is anecdotal evidence suggesting involuntary testing of assassination weapons, including poisons, on prisoners held in the Soviet Union throughout the Soviet period [1917–1989], there is no evidence of large-scale human subject testing similar to that conducted by the Germans and the Japanese. As access to the archives of the Soviet period improves, scholars may have an opportunity to examine this issue in greater depth.<sup>16</sup>)

Any discussion of wartime medical atrocities, especially those on the scale attributed to Japan and Germany, requires an examination of the overall context in which they occurred. Such an examination must begin with a brief review of international sentiment and accords in the period preceding the events, as well as a review of the culture of the specific countries engaging in unethical biomedical experimentation. (Chapter 23, Military Medicine in

War: The Geneva Conventions, examines the evolution of these international treaties in some detail. However, Japan, and, to a lesser extent, Germany, ignored the Conventions and treaties during the period preceding World War II as well as during the war itself.)

In the immediate period following the end of World War II, world public opinion deemed such experiments, especially those publicly detailed to have occurred in the Third Reich, to be war crimes, that is, crimes against humanity. Very little, however, was said about Japanese biomedical experimentation. Thus, despite world public opinion, Japanese doctors were not held accountable for their behavior, nor was the Japanese populace mobilized against the crimes perpetrated during the war on their Chinese neighbors to the north, or to other captive populations in East and Southeast Asia.

Those who governed Japan in the decade or so following the end of the war did offer some compensation to governments of former occupied lands. Little, if anything, however, was given to individual victims of Japanese oppression.<sup>17–19</sup> Japan did not undergo a catharsis of self-examination. Textbooks did not mention Japanese wartime excesses until the early 1990s.<sup>20–24</sup> With the cooperation of American Occupation officials (for reasons that will be explored further in this chapter), the Japanese government, in Professor John Dower's word, "sanitized" the more horrendous aspects of Japan's recent past.<sup>14,25,26</sup> The outcome of these "sanitizing" actions has been that postwar international public opinion was never focused on Japanese doctors with the same intensity that German medicine experienced. Most average citizens worldwide had no appreciable understanding of the extent and range of Japanese biomedical research and experimentation until the 1980s and 1990s.

The question sometimes arises as to why one should now revisit the horrors of Japanese biomedical research after the span of more than half a century. The answer is twofold. The fact that the perpetrators of these crimes were not charged or convicted does not lessen the nature of their deeds. Furthermore, to attempt to prevent their recurrence anywhere, Japan's biomedical research programs, and the atrocities that all too often accompanied them, must be explored.

This chapter, then, will detail the state of medical ethics in the period preceding World War II, as well as historical context and nationalistic racism in Japan during this period, before exploring the specifics of the extreme biomedical experimentation

activities practiced by Japanese researchers. Those activities involve not only those officially sanctioned by the government, but also those of a freelance nature that the government did nothing to prevent. The chapter will conclude with a discussion of the actions of Japan and other countries in the postwar period. Although the atrocities that

were all too often part of the experimental process were clearly immoral, unethical, and illegal, it was more than a case of “evil” doctors turned loose on a captive population. This chapter will demonstrate that what happened in Japanese military medicine was complex and cannot be explained in simplistic pseudocultural terms.

## DIMENSIONS OF THE PROBLEM

During the years leading up to World War II and throughout the war, Japanese military and civilian medical personnel conducted experiments on human subjects without their consent that rivaled and, at times, exceeded those of the most inhumane Nazi doctors. (Proctor has provided figures of German medical experiments that, compared to the figures coming out of China, suggest that the Japanese doctors murdered many more persons in their experiments than did the Nazi doctors.<sup>27</sup>) The scope of professional involvement is demonstrated in Exhibit 16-1, which details the medical and nonmedical officers and “experts” located at the notorious Ping Fan installation and satellite units at the time of Japan’s surrender.

These doctors, surgeons, dentists, microbiologists, veterinarians, research technicians, and their staffs, were financed, equipped, and supported in

other significant ways by those in power in Japan from the mid-1920s until the Japanese surrender in August 1945. Their crimes, which are estimated to have resulted in the deaths of several hundred thousand individuals, fell under the rubric of official Japanese government policy covering biomedical research with human subjects, beginning as early as 1930 and lasting until 1945. The concerns of the researchers were to develop viable chemical and biological warfare weapons to be employed in future wars. The various chemical and biological programs alone ultimately involved many thousands of technically trained people, both civilian and military. Hundreds of others participated in the freelance actions. This exploration will begin with a discussion of the extent to which the official Japanese government was involved.

## WHO KNEW?

Who in Japan knew of these violations of the pledges contained in the various Hague and Geneva conventions, and when did they know? Of those who were aware of the transgressions, did any group or any one individual attempt to bring to an end the widespread abuses of power? Three groups bear primary and shared responsibility: (1) the medical and academic professions; (2) the Japanese military; and (3) the Japanese government (both the royal family and civilian members of the bureaucracy).

### The Medical and Academic Professions

The Japanese medical and academic professions provided the expertise necessary for the biomedical projects. Many of these highly skilled, well-educated professionals directly participated in the killings. Their expertise was essential to the development and implementation of the research programs. The pursuit of scientific “truth,” or the advancement of one’s career, led these individuals to commit crimes of extreme cruelty. Others who did not actually engage in the killings nonetheless looked upon the acts of their colleagues dispassionately and with-

out any sense of guilt.<sup>28</sup> Civilian university medical professors also knew of the conduct of their colleagues. However, few, if any, questioned the abuse of medical ethics.

Medical schools, dental schools, and veterinary schools supplied their best students for the biological warfare (BW) and chemical warfare (CW) programs. Directors of these laboratories recruited students at some of Japan’s finest schools—for example, Tokyo Imperial University and Kyoto Imperial University—by holding public lectures and by showing motion pictures and photographs of human experiments.<sup>29–33</sup> University professors encouraged their brightest students to enlist in these programs.<sup>30–32,34</sup> Medical ethics were never discussed during the periodic recruitment drives.<sup>31–34</sup> As Naito Ryoichi, founder of the Green Cross Company, once remarked, “Most microbiologists in Japan were connected in some way or another”<sup>6(p184)</sup> to the human experimentation programs. In the case of support staff, many joined in the work because “the pay was good. At eighteen or nineteen years of age, we were getting higher salaries than the teachers who had educated us a long time ago, back in school.”<sup>6(pp217–218)</sup>



## EXHIBIT 16-1

### PROFESSIONAL INVOLVEMENT IN BIOMEDICAL ATROCITIES



Caption: "1939 group photograph of Unit 731's leading scientists, taken at a banquet in Harbin." Photograph (including caption) of display at the Ping Fan Museum, Harbin, Manchuria, China from the collection of Sheldon Harris.

At the time of Japan's surrender, the following numbers of medical officers, pharmacist officers, pilots, non-medical officers, and "civilian experts" were stationed at Ping Fan and satellite units:

- Medical Officers: 154, of which 141 were graduates from medical schools, and at least 22 were licensed medical doctors.
- Pharmacist Officers: 21, of which 15 were graduates from pharmacist schools, including one major general, four colonels, three lieutenant colonels, five majors, four captains, and several other unidentified officers.
- Pilots: Four, of which three were graduates from medical schools.
- Nonmedical Officers: More than 125, including two Lieutenant Generals, seven major generals, 17 colonels, 24 lieutenant colonels, 58 majors, 19 captains, four first lieutenants, and several other unidentified officers.
- "Civilian Experts": 101, of which 43 were graduates of medical schools, including 18 licensed physicians, one from dental school, four from pharmacist schools, five from veterinarian schools, and 19 from faculties of agriculture, natural sciences, and engineering schools. Six civilians were described as experts of x-ray, power, glass work, and construction. One was known for his expertise as a jailor.

Source: Hata I: *Nippon Rikukaigun Jinmei Jiten (Who's Who of The Japanese Army and Navy)*. Tokyo: University of Japan Press, 1991. Professor Shabata Shingo kindly provided the author with an English translation of the figures cited in this exhibit.

## The Japanese Military

Organized, structured, systematic, involuntary human experimentation was a feature of Japanese military planning during the decade before the outbreak of World War II as well as during the war itself.<sup>35(pp149-155)</sup> As noted below, extraordinary quan-

ties of resources were allotted by the authorities in Tokyo for projects that ultimately "sacrificed" (the euphemism formally employed to describe killing victims) the lives of hundreds of thousands of Chinese, Korean, Formosan, Indonesian, Burmese, Thai, and other Asian nationalities. (There is also evidence that some European and American pris-

oners were “sacrificed”<sup>14</sup>[pp154–160] during the course of BW and CW research.)

Most members of Japan’s military medical units must have been aware of the actions of their colleagues. There was a long list of senior officers who either knew of the brutal treatment of civilians and prisoners of war (POWs) under their command, or actually gave orders to conduct it.<sup>14</sup> Likewise, a great number of naval officers of comparable rank knew of the criminal activities of their subordinates.<sup>14</sup>(pp168–178)

In addition to those who actually engaged in the experiments, the high command of the Kwantung Army<sup>33</sup>(pp273–284) was aware of these activities. (The Kwantung Army was a semi-independent military force stationed in Manchuria to safeguard Japan’s interests there. Although under the control of the command structure in Tokyo, the Kwantung Army, on occasion, was known to have ignored Tokyo’s commands.) Moreover, although the high command in Tokyo later denied any knowledge of these activities, there is ample evidence that the generals responsible for military planning and the allocation of limited resources enthusiastically supported biomedical research and other programs involving human experiments.<sup>15</sup>(pp132–146) It is now known, for example, that the annual expenditures for human biological warfare research were approximately \$90 million in 1998 dollars.<sup>36</sup> How could the high command in Tokyo sign off on such a large sum of

money without knowing for what purposes the recipients were utilizing the funds?

Free-lance experiments (experiments that occurred outside the officially sanctioned biomedical research programs, but not necessarily outside military facilities or without military or professional participation) sometimes took place in the Home Islands, but more frequently occurred in the remote areas controlled by the military. Exhibit 16-2 details free-lance experiments involving human vivisection. Considering the frequency and locale of these activities, it would appear that the various commanders must have known of their occurrence.

### The Japanese Government

The involvement of the official Japanese government was also essential to the implementation and success of these biomedical experimentation programs. The budgets, personnel, and materiel needs were such that government assistance would be required. Foremost would be the involvement of the Royal family.

### The Royal Family

The Royal family bears considerable responsibility for the biomedical experimentation program. Emperor Hirohito (who became emperor of Japan on 25

## EXHIBIT 16-2

### A DESCRIPTION OF FREE-LANCE VIVISECTION

In 1958, the distinguished Japanese novelist Endo Shusaku published a novel titled *Umi to Dokuyaku* (*The Sea and Poison*).<sup>1</sup> The novel was well-received by the reading public and achieved critical acclaim, winning two literary awards, one of which was the Akutagawa prize. *The Sea and Poison* is both a harrowing and a haunting novel, telling the story, in thinly disguised fiction, of the vivisection of an American airman who was a prisoner of war (POW) in the city of Fukuoka. The vivisection was performed by a senior physician on the staff of a local hospital. The surgeon was assisted by a team of associate doctors, interns, and nurses. In the actual event, no one protested his or her assignment,<sup>2,3</sup> although in the novel one of the interns refuses to participate in the operation, but remains to observe his superiors’ performances.

The most impressive aspect of the novel is Endo’s exploration of the motives of those men and women who engaged in the vivisection. Endo demonstrates convincingly, albeit fictionally, the total lack of consideration for the victim of experimentation. There was no sense of an obligation to respect minimal medical ethics on the part of senior surgeons or their associates and assistants. The nurses, all female, fulfilled their duties during the vivisection, and demonstrated an equal lack of compassion for, or interest in, the fate of the patient. The fact that the novel was both a critical and a popular success suggests perhaps that many Japanese in the 1950s and 1960s did not deny the wartime excesses of their countrymen.

Sources: (1) Endo S. *The Sea and Poison*. Gallagher M, trans. London: Peter Owen, Ltd.; 1972. (2) Daws G. *Prisoners of the Japanese: POWs of World War II in the Pacific*. New York: William Morrow & Co.; 1994: 322–323. (3) Tanaka Y. *Hidden Horrors: Japanese War Crimes in World War II*. Boulder, Colo: Westview Press; 1996: 241 (note 63).

December 1926 upon the death of his father) implicitly, as well as sometimes literally, signed off on these enterprises.<sup>33(pp104–105)</sup> Members of the extended royal family (Emperor Hirohito's younger brothers, uncles, cousins, and various relatives by marriage) played important roles in the projects.<sup>33(pp104–106),34</sup> Exhibit 16-3 details some of the biomedical research activities of the royal family.

The emperor's role in the biomedical ethical controversy is somewhat unclear. Under the Japanese Constitution, Hirohito was an absolute ruler, but in practice his powers were extremely limited and he was aware of that. Hirohito by nature was a cautious, self-effacing person. By most accounts he was a decent, well-intentioned, somewhat liberal-leaning individual. There is no doubt that he was a man of peace.

However, he was also a strong nationalist who dedicated his life to preserving the integrity of the monarchy. As such, he rarely, if ever, contradicted or overruled decisions taken by either his civilian governments or his armed forces. He once said, "The Emperor cannot on his own volition interfere or intervene in the jurisdiction for which the ministers of state are responsible....I have no choice but to approve it [proposed government policy] whether I desire it or not."<sup>17(p39)</sup> If he chose to deny govern-

ment wishes, he "would clearly be destroying the constitution. If Japan were a despotic state, that would be different, but as the monarch of a constitutional state it is quite impossible for me to behave in that way."<sup>17(pp71–72)</sup> There is evidence to indicate that Hirohito accepted virtually every government proposal during his long reign, no matter what he personally thought of the plan.<sup>17,37(pp14–20,163–169)</sup>

Who delivered these government proposals to the emperor? The aristocracy provided Emperor Hirohito with his most trusted advisers and confidants. These men had close ties to the military, and were briefed periodically as to the various projects the armed forces were supporting. Because the emperor, under the Japanese Constitution, was required to sign off on any action the military proposed undertaking,<sup>17(pp29–32)</sup> Hirohito's advisers probably were told of the BW and CW programs incorporating human experimentation and all that such tests implied. He surely consulted with his most important advisers, the members of the Privy Council, before he issued two Imperial decrees in 1936 authorizing the formation of two Army Units that conducted these biowarfare research programs.<sup>33(pp104,112–113)</sup>

Hirohito is described as sitting through meeting after meeting in total silence from the time of his

## EXHIBIT 16-3

### BIOMEDICAL EXPERIMENTATION AND THE ROYAL FAMILY

Several members of the Imperial family, along with leading figures within the aristocracy, and the closest advisors to the Emperor, either participated in various ways in these programs of biomedical experimentation or knew of their existence. Prince Chichibu, Emperor Hirohito's younger brother, was an ardent disciple of the ultra-right-wing militarists who increasingly influenced Japanese military policy in the immediate prewar era.<sup>1,2</sup> He attended lectures and vivisection demonstrations delivered by Ishii Shiro, one of the principal proponents of biological warfare research. Hirohito's youngest brother, Prince Mikasa, also visited facilities associated with human experiments and vivisection.

The Emperor's uncle, Prince Higashikuni Naruhiko, was one of his principal advisors. The Prince toured some of the facilities engaged in biomedical research during frequent inspection trips to the Japanese colony of Manchukuo (Manchuria) and personally witnessed the human experiments conducted by the military physicians.<sup>3</sup> In addition, he was closely allied with the military commanders of the Kwantung Army, who supplied the money, the men, and the equipment for human experiments.<sup>4</sup>

One of Hirohito's cousins, Prince Takeda Tsuneyoshi, served in Manchukuo during the war as Chief Financial Officer for the Kwantung Army. He controlled the money given to the camps engaged in human experiments. He visited these facilities frequently on inspection tours and also controlled access to them as his office issued permits to visit the camps.<sup>5,6</sup> Takeda was literally the "Keeper of the Gates" for the death camps under Kwantung Army jurisdiction.

Sources: (1) Harris SH. *Factories of Death: Japanese Biological Warfare, 1932–45, and the American Cover-Up*. London: Routledge; 1995: 142. (2) Address by Surgeon Colonel Ishii. *Current Events Tidbits* (The Military Surgeon Group Magazine). Tokyo: April 1939. No. 311. (3) Interview by the author with the Deputy Director of the Ping Fan Museum, Mr. Han Xiao, 7 June 1989. (4) Large SL. *Emperor Hirohito and Showa Japan, A Political Biography*. London: Routledge; 1992: 67–68, 134, 117–119, 144–145. (5) *Japan Times*. Tokyo: 2 March 1963:3. (6) *Japan Times*. Tokyo: 22 April 1964:3.

accession to the throne in 1926, until days before Japan surrendered in August 1945. Although the emperor was briefed on Japan's military plans and activities throughout the war, he never expressed his views openly concerning the decisions taken by the military.<sup>17(pp77-78)</sup> Hirohito might blink one eye, or shrug a shoulder during the briefing. He might even utter a sigh, or cough during discussions. His advisers were free to interpret his body movements as either agreement or disagreement.<sup>17(Chap1,4)</sup>

Hirohito, however, was a trained biologist and thus was quite familiar with the minimum ethical standards practiced in scientific and medical research. In addition, Hirohito took his duties seriously as sovereign. He read carefully all reports submitted to him. He paid close attention to the briefings of his subordinates. He examined the annual military budgets closely, because he was deeply concerned that expenditures not impose too great a burden on the nation's resources.<sup>37(pp89,167)</sup> Although it is doubtful whether the emperor was ever accurately informed of the extent of the use of humans in tests designed to produce weapons, it is certain that he was aware of some of the actions of his medical units.<sup>37(pp14-20,163-169)</sup> (The Japanese archives that might hold a definitive answer to the questions of what the emperor knew, and when did he know it, are closed to scholars, and will remain closed for the foreseeable future.) If the emperor wanted additional information about these activities, he only had to ask those members of his extended family who were intimately involved in the biomedical research.

## HISTORICAL CONTEXT AND NATIONALISTIC RACISM

Prior to 1937, reported Japanese treatment of prisoners of war was comparatively humane.<sup>40(pp96-97)</sup> There were no POW horror stories concerning Japan's conquest of Korea, or its piecemeal acquisitions in China and in Manchuria. Nor were there any reports of major atrocities in the 1905 Russo-Japanese War or in World War I. None of these earlier encounters engendered accounts comparable to those in China after the 1937 invasion, or in World War II.<sup>6,14</sup> The ancient and revered Japanese warrior code of *Bushido* emphasized the nobility of the warrior, and the necessity to treat the enemy with courtesy and honor (see Exhibit 16-4). The code would seem to preclude the violation of medical ethics that became so routine within Japanese medical units after 1937. Consequently, the explanation for the extraordinary change in the handling of prisoners of war, and of those civilians who fell under

## The Civilian Government

The modern Japanese Constitution (1889) provided ultimately for a bicameral *Diet*, or parliament (1890). The Upper House, similar to the British House of Lords, was made up of Peers of the Realm, the nobility. The Lower House of Representatives did not represent the people. Instead, until universal male suffrage was introduced in 1925, it consisted of males elected by male voters over the age of 21 who paid significant annual taxes. The result was that the House of Representatives was controlled by an oligarchy of wealthy businessmen who represented the major industrial conglomerates (the *zaibatsu*), the career bureaucrats, and representatives of the army and the navy. The *Diet* passed the laws, and supplied the members of the revolving governments who ruled in the name of the emperor.

Initially, this oligarchy was moderate in its policies, but the men who dominated the early parliamentary governments began to die out by the 1920s. The new oligarchy that replaced the founding fathers of modern Japan was far more radical and nationalistic. It increasingly came under the sway of the military. By the late 1920s and early 1930s, public policy was determined increasingly by young, ultra-right-wing, fanatical middle-level army and navy officers, who intimidated their superiors by various methods including assassination. The *Diet*, following these trends, reflected increasingly the extremist nationalistic views of the military.<sup>38(pp108ff),39(pp70ff)</sup>

Japanese control from the mid-1930s onward, has intrigued and challenged Western students of Japanese martial behavior over the past half century.<sup>14,37,40,41</sup>

## Nationalistic Racism and Militarism

It is commonly accepted that the Japanese nation is composed of a remarkably homogenous and ethnocentric people. An island nation, Japan was isolated from other cultures for many centuries. Its population, with the exception of a small percentage of aborigines and a smattering of Koreans imported after 1910 to work at menial tasks, is of one basic nationality. A unique culture emerged during the long period of isolation that set Japan apart from most other Asian countries, and from the Western world. It was in this climate that a sense of racial superiority became a dominant factor in Japanese



## EXHIBIT 16-4

## BUSHIDO, THE “WAY OF THE WARRIOR”

*Bushido* traces its origins to the ruling Samurai class in medieval times. Heavily influenced by Confucian philosophy, the Samurai adopted a code of ethics that, with some modifications, persisted as the dominant attitude of the military class through much of the modern era in Japan. The virtues of *Bushido* were obedience to superiors, respect for the gods, loyalty, simplicity, self-discipline, and courage. The concept, which was basically an unwritten ethical code, instilled in the warrior the notion of personal improvement, responsibility for leading others in righteous ways, for working to maintain peace and stability in the community, and for achieving honor and fame. To abuse or humiliate an enemy was antithetical to the basic Confucian ethic of *Bushido*.<sup>1,2</sup> Consequently, the conduct of much of the Japanese armed forces prior to and during World War II was a direct repudiation of the Samurai *Bushido* tradition.<sup>3,4</sup>

Sources: (1) Reischauer EO. *Japan, Past and Present*. 3rd ed rev. New York: Alfred A Knopf; 1967: 87. (2) Beasley WG. *The Rise of Modern Japan*. New York: St. Martin's Press; 1990: 17. (3) Tanaka Y. *Hidden Horrors: Japanese War Crimes in World War II*. Boulder, Colo: Westview Press; 1996: 206–211. (4) Harries M, Harries S. *Soldiers of the Sun: The Rise and Fall of the Imperial Army*. New York: Random House; 1991: 24–25, 338–339.

society.<sup>41</sup> It was believed widely in Japan that the Japanese “race” was of a higher order than any other race or ethnic group. The Japanese accepted a concept of a divine origin as a “select people.”

The mid-20th century was a period in which overt racism flourished throughout the world. Nazi Germany was only one of several European countries that openly practiced an extreme form of racism. The United States was not blameless, harboring deep hostility to minorities of color and of religion. Asians were as racist as their European and American brothers and sisters. Racism in Japan, as in most other cultures, was born of religion and skin color. Japanese racism, however, exceeded that of any other Asian country in both theory and practice.<sup>41,42</sup>

The Shinto faith, essentially the official state religion, was older than Christianity. Its basic tenet positioned the Emperor of Japan as the direct descendant of a goddess who created the Japanese people. The emperor, under this concept, was accepted by many to be a living god. Others thought of him as god-like. All citizens were taught to revere the emperor as the embodiment of Japan's soul. Within this highly nationalistic society that Japan had become at the beginning of the 20th century, the general population was taught to believe that the emperor's expressed wishes must be obeyed blindly by all his loyal subjects.

Hirohito considered himself, however, to be an instrument of the will of his subordinate advisors. Thus, militarists could, and did, exploit his status as the symbol of the nation to further their own

goals and ambitions. This need to follow without personal thought the dictates of the emperor, as filtered down to the lower ranks through the military hierarchy, became a fundamental tenet of the Japanese military system.<sup>17(pp25ff),37(pp68ff)</sup> As one former pharmacy officer explained, the rationale for his having participated in unethical practices during the war was that he did not consider ethics in his work. Rather, “We did not think that way. We did as we were told. I thought General Ishii [one of the major figures in human BW research] was a great man, an important man.”<sup>43(p10)</sup>

Skin color contributed greatly to Japanese racism. The Japanese people, on the whole, are lighter in color than most Asians, which set them apart from other Asians, and furthered nationalistic sentiments of racial superiority. Ultimately, Japanese racism, as exploited by ultranationalists, became indistinguishable from that of the Nazi concept of the superiority of the Aryan race. To the militarists, Asians and most Westerners became sub-races.<sup>41(pp11–73,228–259)</sup>

They were not regarded as truly human, or worthy of the respect accorded to humans. This belief provided a perfect basis for the ill-treatment of prisoners of war and of civilians, who were considered to be worthless.

It was nationalistic racism that led to two of the principal developments in 20th century Japanese history. Japanese militarists exploited nationalistic racism to justify imperial adventures in East and Southeast Asia. Economic, political, and military imperialism took on a racist complexion. More im-

portant, perhaps, was the fact that nationalism combined with racism by the 1920s contributed to a moral decline in virtually every component of Japanese society. The passing of the old oligarchy led to the passing as well of the old traditions of personal improvement, moderation, peace, and stability in the community. The new leaders of the ruling oligarchy rejected the teachings of their elders. They opted instead for policies of arrogance and contempt for traditional ethics or morality.<sup>38,44</sup> It was this moral decay that pervaded the military, academia, business and finance, the sciences, and the medical profession.

Consequently, military medical personnel no longer concerned themselves with the well-being of their patients, especially those who were of foreign nationality. The humane treatment meted out to Russian prisoners during the Russo-Japanese War as well as German prisoners captured in World War I was no longer a benchmark for Japanese medics.<sup>14(pp197ff),18(pp74ff)</sup> This approach was abandoned in the third decade of the 20th century. Instead, when engaging knowingly in unethical practices, military medical personnel believed they were performing these experiments on inferiors. They felt free to try any test of stamina, for instance, to determine the minimum quantity of food necessary to sustain life for these "creatures,"<sup>14(pp89-90)</sup> or to undertake any form of surgery on these "test animals"<sup>14(pp150-151)</sup> that their imagination provided.

Decade after decade as the 20th century advanced, Japanese ultranationalists assumed increasing power both in the military and in civil government. Liberals and moderates were on the defensive throughout the 1920s as Japan experienced difficult times that added to the growing moral decay in society.<sup>18(pp142ff),37,31(p8)</sup> In the early 1920s, there was post-World-War-I disillusionment by those nationalists who had expected Japan would gain great benefits in territory and natural resources from having chosen the winning side. Japan joined the victorious Allies in the war, but in fact received few rewards for its efforts. The Europeans and the Americans dominated peace negotiations with Germany, and awarded Japan little territory in the Far East or any other tangible spoils of war.<sup>14(pp145-150)</sup>

Following this disappointment, there was the devastating 1923 Tokyo earthquake that essentially leveled the city, causing several hundred thousand deaths and enormous physical and economic losses. The country's exploding population seemed to the militarists to be getting too large for the nation's poor natural resources to sustain, except on a subsistence level. This was intolerable for a people who

believed they were destined to play a dominant role in Asia and, perhaps, elsewhere in the world. Finally, the stock market crash of 1929 in the United States affected the Japanese economy greatly and climaxed a 10-year period of perceived disgrace and disaster. The Japanese parliament, the *Diet*, proved ineffective in coping with these problems,<sup>38,39,44</sup> and no other segment of the ruling elements seemed to offer satisfactory solutions to the nation's suffering.

### The Emergence and Power of Secret Military Societies

Militarists were the only ones, seemingly, who benefited from Japan's woes. They recruited more followers with each tragedy or disappointment. Secret societies proliferated within the military, numbering more than 500 by 1940.<sup>45</sup> Although there was an inevitable overlap in membership, these societies did attract a large following within the military. They were especially popular with mid-level officers, many of whom came from relatively poor families in rural areas of Japan. They harbored grievances against those who controlled the country's wealth and dominated the nation's politics. This mid-level officer corps, including those in medical, dental, and veterinarian units, came increasingly to believe in a corporate state similar to that of Fascist Italy or Nazi Germany. Their goal was to eventually establish a national socialist state in Japan by using the emperor as the instrument for gaining control over the organs of state.<sup>39(Chap11),44(ChapIX)</sup>

The ultranationalists in the military became increasingly fanatical in their beliefs and in the tactics they chose to achieve their goals in the late 1920s and early 1930s<sup>17,18</sup> (Exhibit 16-5). In the early 1930s, they ignored high command policy and initiated military moves without permission. For example, the actions that triggered the so-called Manchurian incident from 1931 to 1932, leading ultimately to Japan setting up a puppet colony there, were initiated by mid-level officers in the Kwantung Army. They presented Tokyo with, in effect, a *fait accompli*, having acquired for the nation an important storehouse of mineral resources and abundantly rich agricultural lands. Manchuria, the three northeastern provinces of China (Liaoning, Jilin, and Heilongjiang), was rich in coal and iron. It produced annually abundant crops of wheat, tobacco, millet, and other important food nutrients. The region was sparsely populated, and could serve as an overseas outlet for settling Japan's seeming surplus population. It also brought Japanese troops to the border with their hated enemy, the former Soviet Union. From the militarists' viewpoint, Manchuria was an

important step in Japan's inexorable and rightful expansion on the Asian mainland.

These officers believed in a Japanese form of Manifest Destiny.<sup>15,41</sup> Japan, according to their views, was destined to become the dominant power in Asia. Some believed Japan should first move south in the Pacific and acquire oil- and mineral-rich colonies controlled by Europeans and Americans. Others postulated that Japan's future lay on the mainland of Asia by way of China, and ultimately in the Asian portion of the former Soviet Union. Despite this disagreement, all sides were united in the belief that Japan was destined to expand overseas. The euphemism for the Japanese version of old-fashioned imperialism was something the expansionists labeled "The Greater East Asia Co-Prosperity Sphere."<sup>41(pp283-286)</sup>

When threats and bluster failed to convince reluctant superiors of the action the ultranationalists sought, they turned to outbreaks of violence and extortion.<sup>15,17,19,45</sup> By the early 1930s, these ultranationalists began to assassinate suspected unsympathetic officials in both the government and the military hierarchy. In 1932, members of one of the secret societies murdered the government's finance minister because he was believed to be opposed to military expansion. In 1936, a disgruntled Army officer,

Lieutenant Colonel Aizawa Saburo, killed General Nagata Tetsuzan, a favorite of Emperor Hirohito, and one of his principal military advisers. Aizawa assassinated Nagata in an especially brutal way, first slashing him across the face and chest with his sword, before executing the fatal blow. This was his way of showing extreme disrespect for an officer who had spent his entire adult life in the service of his country. Other leaders, including Prime Minister Inukai Tsuyoshi, were eliminated by adherents of the secret societies. The killers received surprisingly light punishments, and some were not prosecuted at all by the intimidated authorities.<sup>37(pp104-141)</sup>

Assassinations were a prelude to coup attempts by the militarists. Some of the coup plots were so amateurish that they were almost comic when the plotters tried to put their plans into effect, such as the abortive March and October coup attempts of 1931, and the 15 May 1932 coup attempt. Others were far more serious. The Mukden incident, which led to Japan's acquisition of Manchuria in 1932, began as a result of plots by young officers in the Kwantung Army.<sup>37(pp85-102)</sup> A rebellion in February 1936 was led by junior army officers, and nearly toppled the government before it was suppressed. There were many other plans to either take control of the army and of the government, or to force these

## EXHIBIT 16-5

### ULTRANATIONALIST FANATICISM WITHIN THE JAPANESE MILITARY

A conservative estimate suggests that in 1941 there were between 800 and 900 fanatical, emperor-worshipping secret societies within the Japanese Armed Forces.<sup>1</sup> Many of these groups' memberships overlapped, but a majority of the officer corps belonged to one or more of these societies. The Cherry Society, organized in 1927, was perhaps the most powerful of the organizations, with members reaching into the High Command structure.

In the 1930s it was not uncommon for political and military leaders to be targets of assassination plots by factional leaders within the military. Prime Minister Hamaguchi Osachi was assassinated by an ultranationalist in November 1930.<sup>2</sup> In 1932, a group of young Army cadets and Naval officers killed Premier Inukai Tsuyoshi. No one was punished for this crime.<sup>3</sup> Earlier, in 1928, Komoto Saisaki put in motion a plot to kill Marshall Chang Tso-lin, Manchuria's war lord. Komoto expected that with the death of Chang, Japan could move into Manchuria. The plot was successful, Komoto escaped prosecution, and, within 4 years of Chang's death, Japan did succeed in controlling Manchuria.<sup>1,2</sup> Ultrarightists inspired several dozen assassinations, or attempted assassinations, of prominent politicians and military leaders in the decade of the 1930s.

The ultrarightist militarists attempted coups against the lawful government in 1931, 1932, 1933, 1934, 1936, and in the closing days of World War II. While these efforts failed, they cost the lives of many leading Japanese officials. The February 1936 "rebellion" was the most dangerous of all the attempts.<sup>3</sup>

Sources: (1) Anonymous. The Brocade Banner: The Story of Japanese Nationalism, 23 September 1946, pp. 49-50, 61. Record Group 319, Publication File, 1946-51, Box 1776. The National Archives. (2) Harries M, Harries S. *Soldiers of the Sun: The Rise and Fall of the Imperial Army*. New York: Random House; 1991: 142-154. (3) Large SL. *Emperor Hirohito and Showa Japan, A Political Biography*. London: Routledge; 1992: 50-52, 60-75.

institutions to bend to the will of the ultranationalists. All the plots and attempted coups were promulgated by the instigators in the name of the emperor, or on his behalf, in order to restore him and Japan to their rightful place in the world.<sup>17(pp65–69),46</sup> The fanatical plotters' real objective, however, was to use the emperor, or, if he was unwilling, one of his more pliable brothers, as the figurehead leader of a nation controlled by this extreme faction in the armed forces.

These military officers were determined to manage Japan's future by any means necessary to achieve their objectives. Even though their plots, overall, failed, they nonetheless accomplished what they set out to obtain. The ultramilitarists so intimidated the armed forces officer corps by the mid-1930s that they dominated military strategy and objectives. They injected a sense of arrogance and belligerence within the high command, leading to the 1937 invasion of China, border wars with the former Soviet Union in 1938 and 1939, and, ultimately, in 1941, war with the United States, Great Britain, and their allies. Under the relentless prodding of the ultranationalists, the army, and to a lesser extent the navy, had become a state within the state. The history of the Japanese armed forces during this period is one of almost a manic fixation on aggression, even at the cost of defying orders from the civilian government.

### **The Influence of Militarism on Military Medicine in Japan**

It was within the context of these turbulent times that medical school students who planned to become career medical officers received their training. Some students were enrolled directly in army and navy medical schools such as the Tokyo Army Medical College or the Kwantung Army Medical College in Mukden (Shenyang), in Japanese-occupied northeast China. Others attended prestigious civilian medical schools. These students became candidates for an officer's commission upon graduation from their home institution.

It made no difference, however, whether candidates trained at army or navy medical colleges, or in civilian universities because all students received basically similar training. Their courses in microbiology, anatomy, chemistry, pharmacology, and other subjects were undoubtedly of excellent quality. The one obvious educational deficiency in all the medical institutions in Japan was the absence of formal courses in medical ethics. Occasionally, a senior professor might take a promising student aside and

discuss the nature of ethics as applied to medical situations. Otherwise, they were taught to treat the sick, and, in time of war, the wounded. Neither ethical nor moral considerations entered into the students' diagnoses or their course of prescribed treatment.<sup>47,48</sup> Medical school graduates were not exposed to the Hippocratic Oath, or to a Japanese equivalent. There were no laws in Japan safeguarding patients from unauthorized or nonconsensual medical treatment, something that many countries in the West attempted to provide their sick and disabled.<sup>49</sup> In Japanese medical schools, it was assumed by their professors that medical students would treat their patients well.<sup>50</sup>

Although it is equally true that most North American medical and dental schools during this time period did not provide students with formal courses in medical ethics or bioethics, there were nonetheless certain significant differences between these medical schools and those in Japan. Many of the American medical schools were affiliated with religious institutions, and the moral atmosphere of the controlling religious order or sect permeated the medical students' studies.<sup>51,52</sup> Medical school professors routinely instructed their students in the healing responsibilities of the medical profession and most Western medical schools trained their students in ethical conduct by having them observe how their mentors treated patients. Students learned standards of medical conduct by observing their instructors as they treated patients with at least a modicum of compassion and concern. Moreover, as noted previously, all medical students were required to take the Hippocratic Oath as part of their graduation requirements.<sup>53–55</sup> The latter was no guarantee that a doctor would not behave unethically in treating patients, but the Hippocratic tradition was so strong that it did govern the conduct of the vast majority of physicians, civilian and military.<sup>56,57</sup>

There were nonetheless occasional lapses in medical ethical conduct in the United States and Canada during this period. The Tuskegee syphilis study of 400 rural Southern black patients covering a 40-year period that began in 1932 is perhaps the most notorious example of such lapses. (The United States government, through the action of President Clinton, formally apologized to the survivors of the study in 1997.<sup>58</sup> Earlier, in 1974, the victims or their heirs were granted monetary compensation by the government [see Chapter 17, *The Cold War and Beyond: Covert and Deceptive American Medical Experimentation*, for a further discussion of Tuskegee].)

Once admitted into the Japanese military in the 1930s and early 1940s, the new medical officers'



orientation did not provide time for ethical or moral discussions. The physicians and scientists continued to train in their fields of interest or specialization, but such continuing education did not include lectures on ethics; nor were they provided with any military manuals that contained sections dealing with the issue.<sup>31,59–62</sup>

The Japanese military after 1920<sup>40(pp96–98)</sup> showed less interest in humanitarian or human rights concepts than it displayed earlier in the century. These concepts were ignored, even though Japan was a party to the Hague Convention. It is true that Japan did not ratify the 1929 Geneva Protocol on Treatment of Prisoners but from time to time the government did announce that it would adhere to its provisions.<sup>14,18(pp478ff)</sup> Medical officers were exposed to a few hours of lectures on international law relating to prisoners of war, but these symposia or discussions were almost without exception an analysis of “Japanese law.” Mid- and junior-level Japanese medical and scientific personnel in the military knew nothing of their obligations under international law.<sup>14(pp199–211),63</sup>

Increasingly under the sway of fanatical militarists who showed no compassion to their own compatriots, the military did little to control the passions that corrupt soldiers in time of war. When mid-level officers casually assassinated generals (Exhibit 16-5) and leading government officials to further their aims, and knew that their punishment would be minimal, it was not surprising that they set an example for medical officers to emulate. Medical corps officers assumed that they could undertake nonconsensual experiments with prisoners in any manner they chose, with no fear that they would be held accountable.

Soldiers were brutalized routinely. Corporals slapped privates, sergeants manhandled corporals, lieutenants beat up sergeants, and so on up the line of command.<sup>14,18</sup> Medical officers accepted this conduct to be the norm within the armed forces. Therefore, their subsequent inhumane treatment of prisoners placed in their custody became part of everyday military routine.<sup>14(p198)</sup> It is not hard to imagine that if a military man, whether officer or soldier, treats

his own troops brutally, he would treat the enemy even more brutally.

The doctors and their professional colleagues acted in a manner consistent with the harsh, often cruel, environment created by the machinations of the ultramilitarists. Those individuals who joined the armed forces fresh out of their medical, dental, or veterinarian schools, and those who joined them after completing doctorates in microbiology or another science subject, were not inherently evil people. In fact, many were basically decent and idealistic in their instincts, but they lacked the moral courage to oppose the system. Few even considered the possibility of refusing to follow orders to perform unnecessary procedures, or to kill patients. In essence, most members of the medical units were the product of their times and of the environment in which they lived and flourished, no matter what inner doubts they may have harbored.<sup>14(pp197–211),41</sup>

These three factors—(1) nationalistic racism and militarism, (2) the emergence and power of secret military societies, and (3) the influence of militarism on military medicine in Japan during this era—combined to produce programs of biomedical experimentation that were unequaled for their size, scope, and lack of compassion or concern for research subjects. These activities can be divided into two major categories: (1) those that were government sponsored and (2) those that were free-lance activities. It is important to distinguish between the two activities. If one does not separate the two, the full magnitude of each can get lost in the overall discussion. Government-sponsored biomedical research was a huge undertaking in wartime Japan, as the following section will amply demonstrate. At the same time, the commission of free-lance atrocities not only indicates the degree to which the Japanese failed to control elements within their empire, it also aptly demonstrates what many might view as the obvious outcome of the barbarization of the military. Government-sponsored research was massive and intentional; free-lance atrocities were widespread and allowed to occur. Both represent the breakdown of medical and military ethics.

## GOVERNMENT-SPONSORED BIOMEDICAL RESEARCH

Before discussing the specific research programs, both in the laboratories and in the field, it is necessary to briefly review the history of how these programs were developed and funded, as well as the acquisition or construction of the facilities themselves. Ishii Shiro was the key organizing force behind the massive biomedical experimentation programs.

### **Ishii Shiro and the Origin of Japanese Biomedical Programs**

Ishii Shiro (Figure 16-1), a young Army doctor, was the impetus for inducing the Japanese military to embrace BW as a major element of the armed forces arsenal of weapons in future wars. He would



**Fig. 16-1.** Ishii Shiro at two points during his military career. Photographs courtesy of Mr. Shoji Kondo.

also be the linchpin of Japan's 15-year sponsorship of BW studies utilizing humans in involuntary experiments. These are briefly summarized in Exhibit 16-6. Ishii was brilliant, unstable, charismatic, flamboyant, mercurial, and a spell-binding advocate for causes he supported. He was also an ultranationalist, who sought fervently to further his country's leadership role in Asia and, at the same time, to advance his career through the promotion of BW research.<sup>18,31,64,65</sup>

He earned his medical degree in 1920 at Kyoto Imperial University. Joining the army as a Surgeon Lieutenant shortly after receiving his medical diploma, Ishii rose rapidly up the ranks. By 1926, when he was completing his doctorate in microbiology from Kyoto Imperial University, Ishii was a member of several of the secret societies that influenced the military.<sup>66</sup> He also had become a convert to the concept that BW was the weapon of the future.<sup>15(pp13-21)</sup>

Employing his powerfully persuasive skills, Major Ishii came to the attention of influential personalities in the military. He convinced former Army Surgeon General and onetime Minister of Health Koizumi

Chikahiko to act as his patron. Koizumi had some doubts about Ishii, remarking once that "Ishii is a strange one, but I think he is good at his work."<sup>59(p49)</sup> Despite his reservations, Koizumi was instrumental in securing Ishii an appointment as Professor of Immunology at the Tokyo Army Medical College, Japan's most prestigious military medical school.<sup>18,31,59,64</sup> Ishii, because of his undoubted brilliance, and his political-military connections, was promoted routinely every 3 years, rising ultimately to the rank of Lieutenant General.

General Nagata Tetsuzan was another of Ishii's patrons. Nagata, who in 1934 was the Army's Chief of the Military Affairs Bureau, was extremely helpful to Ishii, extricating him from one of several brushes with the law.<sup>67(p11)</sup> War Minister General Araki Sadao was still another important Ishii supporter.<sup>67(pp9-10)</sup> Ishii also enjoyed the backing of several of the ultraradical colonels who served on the Army's General Staff, and who wielded considerable power behind the scenes.

In his role as Professor of Immunology, Ishii began to conduct secret limited involuntary experi-

**EXHIBIT 16-6**

**BIOLOGICAL WARFARE RESEARCH OPERATIONS THROUGHOUT THE JAPANESE EMPIRE**

- Tokyo Army Medical College, Department of Immunology; earliest biological warfare research (1930), conducted by Dr. Ishii Shiro, a microbiologist; site lacked privacy; Ishii moved to Harbin.
- Harbin, Manchukuo (1930); designated as “The Togo Unit,” named after Admiral Togo Heihachiro; commanded by Dr. Ishii; staffed with 300 men; larger facility but still lacked necessary privacy; Ishii moved to Beiyinhe.
- Beiyinhe, Manchukuo (60 km south of Harbin) (1932–1934/1935); locals called the site “Zhong Ma Castle”; commanded by Dr. Ishii; investigated blood loss, electrocution, plague, and glanders, using vivisection for immediate pathological examination of organs; several hundred human subjects were killed there; secrecy breached by prisoner insurrection; Ishii closed site and relocated to Ping Fan.
- Ping Fan, Manchukuo (24 km south of Harbin) (1936–1945); designated the “Anti-Epidemic Water Supply and Purification Bureau” but also known as Unit 731; commanded by Dr. Ishii; staffed by approximately 300 medical and scientific personnel and 2,700 support personnel.
- Changchun, Manchukuo; second largest research unit, was designated as the “Anti-Epizootic Protection of Horses Unit” but also known as Unit 100 (1936–1945); commanded by Dr. Wakamatsu Yujiro, a veterinarian; agents investigated were plant toxins, pesticides, defoliants, snake venom; conducted experiments on humans.
- Mukden Army Medical College (1932–1945); commanded by Dr. Kitano Masaji, a microbiologist; used humans extensively.
- Hailar, Inner Mongolia (1936–1945); designated as Unit 2646; subdivision 80 conducted secret human experiments.
- Beijing (1937–1945); designated as Unit 1855; commanded by Colonel Nishimura; at least 300 human subjects were killed there.
- Nanking (Nanjing) (1939–1945); a major BW unit, it was designated as Unit Ei 1644; commanded by Masuda Tomasada; agents investigated were plague, anthrax, typhus, typhoid; killed hundreds of Chinese research subjects; also supplied germs for Unit 731; 28 human skeletons discovered at the site in 1998.
- Canton (1937–1945); designated as “The South China Prevention of Epidemics and Water Supply Unit,” also known as Unit 8604 or the “Wave Unit”; commanded by General Sato; staffed by approximately 300 medical and scientific personnel and another 500 military support staff; jurisdiction extended over all of southwest China; mass grave discovered in 1997.
- Singapore (1942–1945); designated as Unit 9420; initially commanded by Dr. Hareyama Yoshio, then by Dr. Colonel Naito Ryoichi; staffed by approximately 150 physicians and scientists; produced huge quantities of pathogens; human skeletal remains discovered in late 1980s indicate possibility of small-scale human experiments conducted at this site.

ments on humans in his Tokyo laboratory. These experiments commenced as early as 1930. However, it soon became apparent to Ishii and his supporters that Tokyo was an unsatisfactory venue for conducting large-scale human BW experiments. He required a secluded site that would not be open to scrutiny by hostile forces in the outside world. Ishii discov-

ered such a location in 1932, when Japan acquired Manchuria. Through his connections in the military high command, he was able to immediately secure a posting to the newly renamed puppet colony of Manchukuo.<sup>15(pp13–21)</sup>

The Kwantung Army leaders approved of Ishii’s BW plans, and assisted him to assure success for

the venture. Ishii commenced operations in 1932 in the northern cosmopolitan city of Harbin, not too far from the Soviet Siberian border. He arranged with the local authorities to commandeer an entire block of buildings, including a sake factory, in a run-down part of the city. The researcher quickly established his headquarters in this complex, and built a laboratory that was stocked with the latest equipment. His superiors made certain that he was provided with sufficient staff (300 men) and funds (200,000 yen) to begin secret BW experiments. To further disguise the nature of his work, Ishii's command was designated as "The Togo Unit," named after Admiral Togo Heihachiro, the hero of Japan's 1905 war with Russia, and a special Ishii favorite.

It soon became apparent that Harbin, as with Tokyo, was too open to curious observers for Ishii to continue research there on humans. He quickly found a better location for his work in the tiny, isolated, hamlet known as Beiyinhe, some 60 kilometers south of the city. Enlisting once more the cooperation of local authorities, the Japanese forced peasants in and around Beiyinhe to sell them their property.<sup>68</sup> In late 1932, Ishii and his men proceeded to construct an enormous facility on the site. Part of the complex consisted of a research laboratory. Another section was a prison that housed political prisoners as well as ordinary criminals.<sup>68</sup>

Locals christened the site the Zhong Ma Castle, because the main building from the outside took on the appearance of a palace. From 1932 until 1934 or 1935, Ishii and his co-workers experimented on hundreds of prisoners at this facility. Subjects usually were political prisoners, however, when political prisoners were not available, the Japanese turned to the general prison population for additional experimental subjects. Some of the prisoners were captured guerrillas who had continued to fight the Japanese after the occupation of Manchuria. Others were known communists.

The experiments were crude, even by the standards of the times. They consisted of the taking of great quantities of blood, on a routine basis, from prisoners until they became so weak they were no longer of value to the researchers.<sup>15(pp22-30)</sup> The prisoners would then be "sacrificed." Others were subjected to electric shocks of varying degrees of power.<sup>69</sup> If the electric shocks did not kill the victim, he was "sacrificed" shortly after the tests were completed. Tests were also conducted for plague and glanders. The Japanese employed vivisection whenever they required a body part for examination. Orders would go out to prison guards, a prisoner would be rendered unconscious with a blow to the head with an ax, and the specific organ re-

quested would immediately be excised from the body and sent to the laboratory for study.<sup>69,70</sup>

In either late 1934 or early 1935, the wall of secrecy surrounding Beiyinhe was breached by a prisoner insurrection, and by a mysterious explosion at the facility that attracted the curiosity of people in the vicinity. It became apparent that a more secure and isolated facility was required to continue the research.

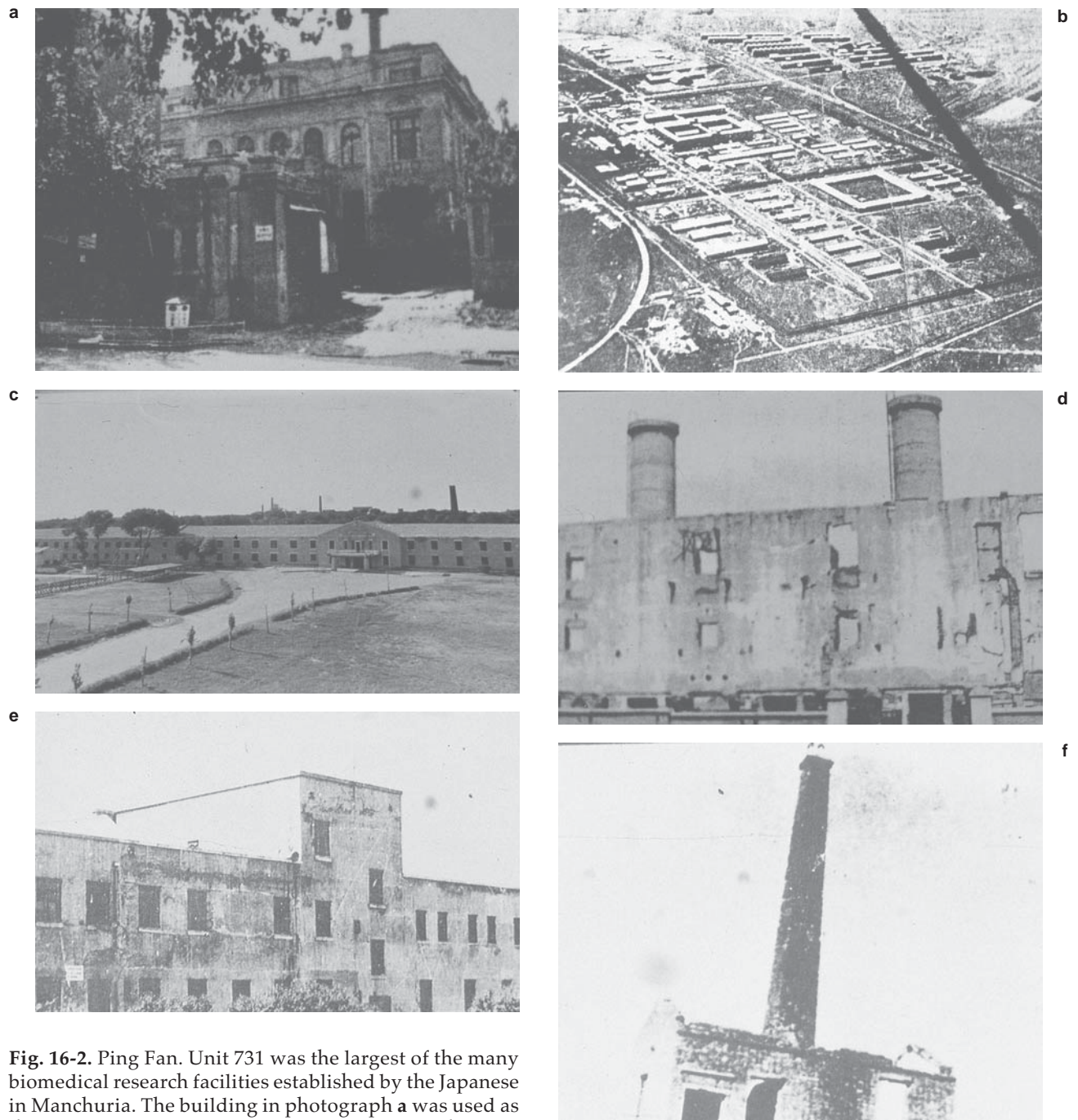
### The Establishment of the Ping Fan Research Facility

Ishii convinced the Kwantung Army commanders and major proponents in the Tokyo High Command that his work was of unusual value to the armed forces. Emperor Hirohito, either by design or through ignorance,<sup>37(p163)</sup> greatly assisted Ishii's plans by issuing an Imperial decree on 1 August 1936, establishing a new army unit, the *Boeki Kyusui Bu*, the Anti-Epidemic Water Supply and Purification Bureau. Ishii was appointed head of the Bureau, thus offering him a perfect cover to establish "water purification" laboratories wherever he wished. The laboratories would engage in legitimate water purification work, but they would also be the disguise for secret BW research with humans.<sup>15,33</sup> Ishii merged the old Togo Unit with a complement of new scientific recruits and a group of fanatically loyal soldiers from his hometown in Japan. The new unit was called the Ishii Unit. (To maintain even greater secrecy, the Ishii Unit was later given a numerical designation, Unit 731. All subsequently established BW units also were given numerical designations to further conceal their true assignments.)

Ishii was given additional funds, equipment, and skilled researchers in order to continue work on perfecting BW weapons. He was also provided with a piece of land located 24 kilometers south of Harbin's city center. The large tract, actually a cluster of peasant villages, was called Ping Fan, and covered an area of approximately 6 square kilometers. Construction was begun in 1936, and the entire complex of more than 150 buildings was finished in 1939 (Figure 16-2). The facility there became Ishii's Manchurian headquarters until 1945; it is known to scholars as the Ping Fan BW "death factory." (The Chinese characters suggest that the name should be spelled Ping Fang, but Ping Fan is commonly used by students of Japanese biowarfare activities.)

It was the most complete and modern BW research facility of its time. Ping Fan housed dozens of specialized laboratories. The complex included a refrigerated chamber used to study frostbite, stables for horses and other large animals, build-





**Fig. 16-2.** Ping Fan. Unit 731 was the largest of the many biomedical research facilities established by the Japanese in Manchuria. The building in photograph a was used as the selection point for individuals destined for the “factory.” Photograph b, an aerial view of the complex, does not show the entire facility but gives a sense of its size, as do photographs c–f. Photographs of exhibit materials (including captions) from displays at the Ping Fan Museum, Harbin, Manchuria, China, from the collection of Sheldon Harris.

ings equipped to handle thousands of small research animals, and two prisons, one holding only males, the other for both males and females (including children). Three crematoria were also part of the complex. There were barracks for soldiers guarding the area, schools for the children of civilian and

military personnel, a huge administrative building, a library, and provisions for recreational activities, including a large swimming pool and two brothels (staffed, presumably, with Comfort Women).<sup>71</sup>

Ping Fan was surrounded by several 3-meter-high brick fences, a moat, and a series of electric

and barbed wire barriers. No one, including Japanese nationals, could enter Ping Fan without securing a pass from a Kwantung Army official. The local residents were told only that the Japanese were building a lumber mill. Among themselves the Japanese researchers furthered the image of a "lumber mill." Candidates for experiments in the BW camps were referred to by the medical researchers there as "*marutas*"<sup>30,33,60,61,72,73</sup> or logs. Logs were brought into the lumber mills, examined or tested for an assortment of "impurities," cut up (autopsied), and then (to continue with the metaphor) burned as firewood in the camp's incinerators.<sup>15(pp57-82)</sup>

With the completion of the Ping Fan facility, satellite research stations, or units, were also established throughout Manchuria. The most important of these smaller facilities were located at Anda, 140 kilometers north of Harbin, and Darien (Dalian), southern Manchuria's seaport that is free of ice throughout the year. Ishii's influence spread beyond Manchuria to parts of occupied China, Inner Mongolia, and to many of the territories Japan acquired during the first days of World War II. At the height of his power, Ishii commanded a fleet of airplanes, several thousand medical and scientific personnel, and a sizable army of soldiers. Most important, he exercised total control over huge annual expenditures. Ishii had created a BW empire and he was its sovereign ruler.

### **Other Biomedical Research Facilities in Occupied Territories**

Research establishments were located in more than two dozen sites altogether. Each location was manned by an army unit composed of medical and scientific personnel and ordinary soldiers required to protect the facility. Some of the BW secret laboratories were quite large, although none equaled the extent of the Ping Fan installation. Others were small satellite or support resources. Many units were labeled Water Purification Units and were under the direct command of either Ishii or one of his close associates. Still others operated independently of Ishii, and held designations that rivaled in imagination the Water Purification nomenclature. It is reasonable to estimate that overall the BW project enlisted more than 20,000 civilian and army personnel.

Most of the BW units did not concentrate on one or two pathogens. Instead, their investigations covered an extraordinary variety of diseases, from anthrax to yellow fever. Workers were given assignments to study plague, typhoid, paratyphoid A and

B, typhus, smallpox, tularemia, infectious jaundice, gas gangrene, tetanus, cholera, dysentery, glanders, scarlet fever, undulant fever, tick encephalitis, "songo" or epidemic hemorrhagic fever (probably similar to Hantavirus in the United States), whooping cough, diphtheria, pneumonia, epidemic cerebrospinal meningitis, venereal diseases, tuberculosis, and salmonella, as well as diseases endemic to local communities within range of a unit's resources. Physicians and scientists studied also the effects of frostbite and the pressures a human body could endure in high-altitude flying. The agrarian units, such as Unit 100, studied the killing possibilities of hundreds of plant and animal poisons.<sup>32,74-76</sup>

The second largest BW research operation (Ping Fan being the largest) was also created by Imperial decree in 1936.<sup>33(pp40,51-55)</sup> It was given the camouflaged designation, "Anti-Epizootic Protection of Horses Unit," and was posted in a suburb of Changchun, the capital of the puppet colony of Manchukuo. This new unit was commanded by Major Wakamatsu Yujiro, a veterinarian, who was given jurisdiction over a plot of land that measured 20 square kilometers, more than three times the size of Ping Fan. (Like Ishii, Wakamatsu had been promoted every few years, rising to the rank of major general in 1945.) Initially the unit, in keeping with Japanese tradition, was known as the Wakamatsu Unit. But, in 1940, at the same time that the Ishii Unit was given the number 731, Wakamatsu's troops were allotted the unit number 100.

Crops of known poisonous plants were grown on Unit 100's farms. The unit's agronomists also tried to cultivate new forms of deadly toxins derived from plant life. Pesticides and defoliants were another prime research area. Poisonous snakes were bred for their venom. Other animals, both domestic and wild, were raised for testing purposes. Humans were also subjected to various experiments with the poisons and then were "sacrificed" and dissected, although not as many people were killed here as at Ping Fan.<sup>15</sup>

Kitano Masaji (Figure 16-3), a longtime bitter Ishii rival, ranked slightly behind Wakamatsu as the third most important figure in the BW enterprise. Kitano received his medical degree at Tokyo Imperial University in 1922. He continued graduate studies there, joined the army, and was sent to Manchuria in 1932. As with Ishii, Kitano moved up in status every 3 or 4 years, ultimately achieving the rank of lieutenant general in the Medical Corps. He was brilliant and scholarly, but lacked Ishii's flamboyance.

Kitano was appointed Professor of Microbiology at the Mukden Army Medical College, and pro-



ceeded to build a BW research laboratory there that used humans extensively in studies he and his colleagues pursued. Kitano published widely in scientific journals in Japan and abroad for more than 20 years; a significant number of his papers were based on human experiments. His readers became aware of certain code words that indicated findings based upon his research with humans. If Kitano referred to “monkeys” in his papers rather than to a specific primate, the reader understood that “monkeys” meant humans. His lectures to students at the Mukden Military Medical College also contained frequent references to his research on monkeys.<sup>48</sup> Hundreds, if not thousands, of Chinese, Korean, and other nationals were “monkeys” in Kitano’s research.<sup>15(pp50–81)</sup>

Many BW research facility locations are unknown at present. There are, however, many confirmed

locations. They stretch from Hailar (Unit 2646, whose subdivision, Unit 80, conducted secret human experiments) in the bleak, frigid landscape of Inner Mongolia, south to Singapore and other tropical venues. BW laboratories were established in Beijing (Unit 1855) and a satellite station at Chinan. The Beijing Unit was housed near the Temple of Heaven, and was led by a Colonel Nishimura Yeni (Chinese pronunciation of Nishimura’s given name). At least 300 people were killed in Unit 1855 laboratory experiments.<sup>6(pp51–53)</sup> Rangoon (Yangon) in Burma (Myanmar) and Bangkok in Thailand were other important research centers, although little is known currently of their activities. There is some evidence<sup>77(pp160–164)</sup> to suggest that the Japanese established laboratories in Shanghai (Kitano was stationed there in the closing days of the war), Manila, and in the Dutch East Indies (Indonesia).

A major BW research center was situated in the center of Nanking (Nanjing) in a sequestered Chinese hospital. Nanking had been the focus of world attention ever since the infamous 1937 “Rape of Nanking” had occurred there. Nevertheless, Unit Ei 1644, commanded by Masuda Tomasada, killed hundreds of Chinese in plague, anthrax, typhus, typhoid, and other pathogen tests.<sup>59</sup> The Nanking facility acted also as a germ supply factory for Unit 731.

Canton (Guangzhou) was the home of “The South China Prevention of Epidemics and Water Supply Unit.” The Japanese Army designated this miniature version of Ishii’s Ping Fan Water Purification Bureau as Unit 8604, known in Chinese as Bo Zi, or “Wave Unit.” General Sato Shunji commanded the 800 men and women who served in the unit. The unit was composed of approximately 200 civilian medical and scientific personnel, 100 commissioned officers, many of whom were physicians or held doctorates in a scientific field, and 500 soldiers and noncommissioned officers assigned to guard the research center. Unit 8604’s jurisdiction extended over all of southwest China, including the newly conquered Hong Kong territory. It was in the area of Hong Kong that the unit carried out some of its most horrendous experiments.<sup>78</sup>

Singapore was also an important BW base. A BW laboratory was established there within days of the Japanese conquest. It became one of the largest of the BW installations outside the China mainland. Initially, Unit 9420 (the numerical designation for the BW unit) was under the command of Hareyama Yoshio, but in 1942, Lieutenant Colonel Naito Ryoichi, one of Ishii’s most trusted colleagues, assumed control of the facility for several years. It was staffed with approximately 150 physicians and sci-



**Fig. 16-3.** Kitano Masaji. Caption: “Lieutenant General Kitano Masaji, the second commander of Unit 731 (Medical Major-General).” Photograph (including caption) on display at the Ping Fan Museum, Harbin, Manchuria, China, from the collection of Sheldon Harris.

entists, and produced huge quantities of pathogens annually. One of the lab technicians recalled that in 1944 he was sent back to Japan to bring rats for breeding fleas in Singapore. Two planes were required to transport the rats, estimated to number approximately 30,000.<sup>77(pp160-164)</sup> Naito and his staff worked primarily with typhus, plague, and pesticides. It is unknown whether Singapore was a BW research facility, or whether it was simply a laboratory employed to produce pathogens for use elsewhere. However, because Naito Ryoichi is known to have been of great assistance to Ishii in the Ping Fan installation, it would not be improbable that he tested some of the pathogens produced in Singapore on prisoners under his control.<sup>77(pp160-164),79,80</sup> (The locations of the research facilities are

shown in Figure 16-4.)

This section has discussed some of the other research facilities that are known to have existed. Others may be found in the years to come. What they demonstrate, however many there may be, is that this was a huge research program. Its goals were to change the nature of warfare by introducing bioweapons.

### Biological Warfare Laboratory Experiments

Ishii Shiro once stated succinctly the then-current philosophy. In a speech to new recruits at Ping Fan, Ishii declared,

Our god-given mission as doctors is to challenge



**Fig. 16-4.** Map showing locations of Japanese biomedical experimentation facilities. Reproduced with permission from Harris SH. *Factories of Death: Japanese Biological Warfare, 1932-45, and the American Cover-Up*. London: Routledge; 1995: xii.



all varieties of disease-causing microorganisms...to block all roads of intrusion into the human body; to annihilate all foreign matter resident in our bodies; and to devise the most expeditious treatment possible.<sup>31(p71)</sup>

But, Ishii urged his fellow researchers to put aside all feelings of compassion for their patients. The new approach to research in medicine must be based upon

the dual thrill of 1), a scientist to exert efforts... probing for the truth in natural science and research into, and discovery of, the unknown world and 2), as a military person, to successfully build a powerful military weapon against the enemy.<sup>15(p44)</sup>

The promoters of BW research had several objectives in mind. They had to determine the feasibility of producing massive quantities of the germs selected. They needed to manufacture viable delivery systems. Pathogens could not be a valuable weapon unless they could be introduced into enemy territory. And they wished to discover those pathogens that could best be used in BW. To do this they needed to fully understand the effects of pathogens on humans.

### *Pathogen Production*

The Ping Fan facility produced enormous quantities of pathogens. Laboratory technicians bred, or imported, enormous numbers of animals to help produce pathogens. Fifty thousand or more rats and chickens were expended in an average year at the Ping Fan installation alone. At one time, General Ishii issued a requisition for one million rats, although it is unlikely that he achieved his goal.<sup>73</sup> Research was not confined to pigs, rabbits, goats, sheep, monkeys, horses, and other animals that are normally found in a research laboratory. The technicians also handled animals that would be considered exotic in the context of a BW laboratory: camels, lions, tigers, water buffalo, bears, and similar non-traditional animal research material.<sup>15(p4)</sup>

Ishii personally designed the duraluminum oven cultivators used at Ping Fan. Each oven contained 15 trays for cultivating bacteria. The facility was equipped with 500 incubators and six boilers, each capable of manufacturing 2 tons of culture liquid.<sup>31,60,61,81</sup> It is estimated that Ping Fan, alone, could turn out 3 trillion microorganisms every few days. Agar was the medium (6.78 quarts per oven) usually employed to grow bacterium. Enteric organisms were manufactured in batches every 24 hours,

7 days each week, 52 weeks each year. Anthrax, plague, and glanders pathogens took twice as long to cultivate. Anaerobes were harvested on a weekly basis. Ping Fan's laboratories' output was so large that Ishii and his colleagues could use 150 or more kilograms of a specific pathogen in periodic field tests.<sup>33,60,61,76,82</sup> The other BW Units laboratories were as active as those at Ping Fan. The amount of pathogens Japanese BW Units produced each year was so great that the total is incalculable.<sup>81,83</sup>

### *Research Into Effective Delivery Systems*

The Japanese BW researchers were, however, unable to develop effective delivery systems for the massive quantities of germs their BW facilities were capable of manufacturing. Ping Fan was the major center for delivery systems research and development, but all the other BW installations also devoted manpower and materials in an effort to construct weapons. The units worked with different types of artillery shells, such as a conventional gas shell and a 75-millimeter high-explosive shell whose explosive charge was replaced partly with bacteria. After extensive tests, the shells were discovered to be impractical for BW and were abandoned.<sup>74(p1),84</sup>

BW engineers hoped that bombs filled with pathogens could be used effectively. They worked on a single-purpose, steel-walled, high-altitude model that they believed would be successful with anthrax spores, however, their efforts failed. Researchers tried for more than 6 years to produce steel-walled bombs that could house pathogens and survive the explosive force once the bomb was placed on target. They conducted tests with several types of bombs. More than 6,000 bombs were used in these tests, but none of the tests yielded positive results.<sup>33(pp13-14,39,56)</sup> The researchers then turned to porcelain as a possible bomb-making material capable of sustaining bacteria during delivery. They also experimented with high-altitude balloons that, if successful as a BW delivery system, would have been deployed against the United States. All these devices also were unsuccessful as BW weapons.<sup>15(pp59-61)</sup>

### *Research on Pathogen Effects*

Although the search for BW dissemination devices stumbled, research on human effects proceeded briskly. BW researchers tested the pathogens on prisoners daily. As the pathogen effects became more pronounced, acquiring research data became more difficult. Ueda Yataro, who was a Unit 731 lab technician, recalled many years after the war ended

that one day he was assigned to extract blood from a dying *maruta*. It was important to obtain this blood because the previous day's tests revealed an exceptional change in the "material's" blood and rate of infection. Ueda was fearful that his "material" would die before he could complete his assignment. Ueda had the prison guards force other prisoners to lift the dying man's arm so that he could begin his work. The man's hand was already turning purple, and felt cold. Ueda observed that, "More important to me than the man's death was the blood flowing in the human guinea pig's body at the moment before his death."<sup>14(p162)</sup> Ultimately, he was able to obtain ten cubic centimeters of blood as a sample. "For people in laboratory work, this is ecstasy, and one's calling to his profession."<sup>14(p162)</sup> He concluded his comments by saying, "Showing compassion for a person's death pains was of no value to me."<sup>14(p162)</sup>

In 1995, Matsumoto Hiroshi, a former medic in Nanking's Unit Ei 1644, testified that he and his fellow medics would inject prisoners with many different pathogens and would then observe their reactions over a period of time lasting no longer than 3 or 4 months. Blood samples were taken from subjects periodically. When no longer of further use to the researchers, the prisoners would be executed, their bodies dissected, and burned in the unit's incinerators.<sup>85</sup>

Unit 731 used the facility at Anda as a testing area for a variety of human experiments. Infected prisoners were taken there by airplane from Ping Fan. They were then exposed to the elements in an effort to determine the effect, if any, extreme cold had on different pathogens. Healthy prisoners were tested for frostbite by having certain parts of their bodies exposed to temperatures of  $-40^{\circ}\text{F}$  or lower. They were then rewarmed at dissimilar levels of temperature. Still other prisoners at Anda were tied to stakes at measured distances from each other for various experiments. Sometimes bombs filled with shrapnel and bacteria were dropped in a predetermined location where prisoners were held. The prisoners were wounded by the shrapnel, and later examined for possible infection caused by the bacteria-laden bombs. At other times, explosives filled with bacteria were detonated on the ground. Those prisoners who survived the tests were later killed, dissected for their organs, and their bodies disposed of by the usual methods.<sup>15(pp58-60,66-70)</sup>

It is impossible to calculate with precision the number of prisoners killed in laboratory experiments. Rough estimates can be made, however, on the basis of statements in the postwar period by members of the various BW units. Major General Kawashima Kiyoshi testified in December 1949 that

he knew from personal experience that "the number of prisoners of Detachment 731 who died from the effects of experiments in infecting them with severe infectious diseases was no less than about 600 per annum."<sup>33(p57)</sup> Kawashima was stationed at Ping Fan beginning in 1941, and was captured there by Soviet troops in August 1945. By his calculations, 3,000 prisoners died during his tenure at Ping Fan.

However, Ishii and his confederates began killing human research subjects in Tokyo as early as 1930. A total of many thousands more were exterminated in Harbin, Beiyinhe, and Ping Fan from 1936 to 1941, and in Unit 731's satellite facilities. Thousands more were destroyed by Units 100, Ei 1644, the Hailar, Beijing, Canton contingents, and their numerous support units. Consequently, the known evidence suggests that a most conservative estimate of total fatalities would be between 10,000 and 12,000 men, women, and children killed in research conducted at the various facilities. The Nazi doctors, by comparison, are estimated to have killed about 1,000 individuals in their experimental laboratories.<sup>86</sup>

### Biological Warfare Field Tests

Once pathogen production was accomplished on a large scale, the BW researchers sought to evaluate the effectiveness of pathogens on populations in greater numbers than could be determined in laboratory studies. In their view, there was no difference between killing individuals in laboratory experiments, or using BW on large populations of people, civilian or military, outside the confines of the laboratory. Their primary concern was to learn whether they were making progress in developing BW weapons.

The first reports of the use of CW and BW weapons in field tests began to surface in China as early as 1937.<sup>15(pp71-73)</sup> Most of the stories were dismissed as propaganda by Chinese forces who were enduring humiliating defeats by advancing Japanese armies. Some of the reported attacks over the next several years, however, were confirmed by independent sources.<sup>87,88</sup>

The Nomonhan Incident during July and August 1939 is the first major event in which BW and CW were tested extensively against opposing military forces. (Although the recognized authority on the incident disputes this claim,<sup>89</sup> documentary evidence proves conclusively that BW and CW was employed on a large scale.<sup>90</sup>) The field test utilized the combined resources of Units 731, 100, and their satellite units. Two thousand artillery shells laden with bacteria were aimed at Soviet forces. In addi-

## EXHIBIT 16-7

### PATHOGEN TESTS ON CIVILIAN VILLAGES IN CHINA

---

#### Ningbo

The most significant pathogen test in China during Japanese occupation took place in October 1940 in Ningbo, an important port near Hangzhou, and approximately 12 hours south of Shanghai by coastal steamer. It also was the birthplace of Chiang Kai Shek, the Chinese leader. Ningbo had experienced periodic Japanese bombing raids from the opening days of the war in 1937. The common pattern was for three to six planes to fly at high altitudes and to strike early in the day, dropping bombs in or around the port area. Casualties were usually high after each raid, but the local population became accustomed to the sound of planes approaching the city, and took whatever precautions they could for their safety.

The raid of 27 October 1940, described in the diary kept by an American missionary, the Reverend Archie R. Crouch,<sup>1</sup> was most unusual. This time the attack came late in the afternoon. Instead of the typical three to six airplanes, Reverend Crouch noted that, "A lone plane circled slowly over the heart of the city, a plume of what appeared to be dense smoke billowed out behind the fuselage. I thought it must be on fire, but then the cloud dispersed downward quickly, like rain from a thunderhead on a summer day, and the plane flew away."<sup>1</sup>

The plane scattered wheat into the city center. People began to sweep it up to use to feed their chickens, not knowing that the wheat contained plague-infected fleas. Reverend Crouch did not realize what had happened until a few days later, when "the first bubonic plague symptoms appeared among people who lived in the center of the city."<sup>1</sup> Twenty people died within a few days of the pathogen delivery. On November 2nd, Reverend Crouch wrote in his diary, "16 more people died....The Chinese newspapers carried full descriptions of the cause, symptoms and cures [for plague]."<sup>1</sup> Schools were closed. People diagnosed with plague were taken to a special hospital outside the city. Brick masons built a 14-foot-high wall around six square blocks in the city center, the area most heavily affected by the disease. Residents within the six square blocks were evacuated through decontamination sheds that were erected next to the gates. They were hosed down with a disinfectant by the authorities, and all of their clothing and household goods were destroyed as a preventive measure.

In early December, as the plague continued, the city fathers decided that the only feasible way to halt the epidemic's spread was to burn down Ningbo's city center. "Trails of sulphur were laid out like a rat maze through the condemned area. Ignited at strategic places, fires from the burning sulphur raced through the maze like sparkling snakes....The heart of the city was quickly reduced to a pile of glowing embers, and the assumption was that no rat and no flea could possibly escape."<sup>1</sup> The Chinese authorities inoculated most of the population with an antiplague vaccine. Afterward, a Japanese plague decontamination unit arrived and "forced the entire population, including our family, to be injected with its anti-plague serum even though we had already been injected with serum provided by the Chinese."<sup>1</sup>

The official Chinese records account for 100 deaths from plague. Many others died, but were not counted because of the chaos in social services caused by the outbreak. Hundreds more became ill with plague, but recovered. The worst effects of the Ningbo BW raid were over 2 months after the wheat was dropped, but scattered cases of plague were recorded for another 4 months.

#### Chang Teh

Led by Ishii loyalist Colonel Ota Kiyoshi, a contingent of 100 members of Unit 731 concentrated on introducing plague into Chang Teh (Changde), a major business and communication center in Hunan Province. Thirty bacteriologists took part in the operation. They began a series of raids in April and May 1941 dropping plague-infected fleas mixed in wheat and other grains over the city by airplane, similar to the operation at Ningbo.<sup>2</sup>

This was followed up with additional assaults in the autumn. Chang Teh was attacked by a single plane early one morning in November 1941. No bombs were dropped, although the airplane did circle the city at least three times. Instead, wheat pellets, grains of rice, cotton padding, strips of paper, and other

(Exhibit 16-7 continues)

**Exhibit 16-7** *continued*

unlikely objects fell from the sky as the plane continued to fly over the city. Within 10 days after this unusual incident, the city authorities were informed that a case of bubonic plague had been discovered. Others became ill with plague over the following weeks. In all, several thousand, or more, Chang Teh residents were infected with plague. Many died of the disease, although the exact number is unknown.<sup>3</sup> There is no doubt, however, that at least 500 persons died of plague in and around the city as a result of Colonel Ota's efforts. Chang Teh had had no previous history of plague outbreaks.<sup>4</sup>

**Congshan**

In August of 1942, the Japanese repeated the earlier Ningbo maneuver. An airplane circled Congshan, a tiny village of 1,200 inhabitants, spraying "a kind of smoke from its butt," and flew away. Two weeks later, large numbers of rats began to die in Congshan. Then, people began to die. Plague ravaged Congshan for more than 2 months, killing 392 of the approximately 1,200 inhabitants.<sup>5</sup>

Japanese medical personnel came to the village and set up a hospital in the nearby Buddhist temple. Many of the local residents were given legitimate care. Others, however, were exposed to plague germs in the guise of receiving vaccines. After completing their experiments, the Japanese burned the homes of plague victims on 18 November 1942.<sup>5</sup>

Sources: (1) Crouch AR. *Japanese Biological Warfare in China: One Family's Encounter*. Typescript copy of a diary kept by Reverend Archie R. Crouch that was provided to the author. Quotations from the manuscript were taken with Reverend Crouch's permission. (2) Williams P, Wallace D. *Unit 731, The Japanese Army's Secret of Secrets*. London: Hodder & Stoughton; 1989: 95–97. (3) Harris SH. *Factories of Death: Japanese Biological Warfare, 1932–45, and the American Cover-Up*. London: Routledge; 1995: 79. (4) *Materials on the Trial of Former Servicemen of the Japanese Army Charged with Manufacturing and Employing Bacteriological Weapons* [also known as the Khabarovsk Trial]. Moscow: Foreign Languages Publishing House; 1950: 260. (5) Tyler PE. China villagers recall horrors of germ attack. *The New York Times*: 4 February 1997:A1, A6.

tion, pathogens were delivered using more primitive methods, such as dumping them directly into rivers under the cover of darkness, anticipating that the enemy would drink from the infected water.

Personal accounts of the "suicide squads" sent on these river missions have since been published. For instance, in 1982, a Mr. Tsuruta told a reporter for the Tokyo *Mainichi Shimbun*<sup>91</sup> that he was one of 24 men in a "suicide squad" that engaged in a night foray into Soviet territory to drop kilos of typhoid germs in water used by Soviet troops. Seven years later, in 1989, three former servicemen recounted to another reporter their BW role in the Nomonhan struggle. "With our own hands, we threw large quantities of intestinal typhoid bacteria into the river..."<sup>92</sup> The men hand-carried 22 or 23 18-liter oil drums over swampy ground to the river bank. "The pathogens were cultured in a vegetable gelatin. We opened the lids, and poured the jelly-like contents of the cans into the river. We carried the cans back with us so we wouldn't leave any evidence."<sup>92</sup>

None of the Nomonhan tests of different delivery mechanisms were successful. The pathogens dumped into the river lost their virulence almost immediately upon contact with the water. However, the Japanese themselves suffered at least 1,300 casualties due to epidemics related to the BW tests. It also was disclosed some time later that at least 40

men in the BW squads who had been exposed to the pathogens during the mission had died shortly thereafter.<sup>90</sup> Nevertheless, Ishii and Wakamatsu were able to convince their superiors that the BW tests were successful. Both their units received commendations from Emperor Hirohito, a most unusual gesture of recognition for medical units.<sup>15(pp144–145)</sup>

Several plague tests were conducted by a number of BW units in 1940, 1941, and 1942. Exhibit 16-7 details the 1940 Ningbo pathogen test, the follow-on pathogen test conducted in 1941 on Chang Teh, and a comparable test in Congshan in 1942. Similar operations were conducted against cities, towns, and hamlets all over central China, and in Manchuria. Sometimes the target was attacked by airplanes. At other times, plague-infected rats were turned loose on a community. They mated with local rats, thus spreading the infectious material, and eventually causing a major plague eruption. A particularly insidious tactic was to send a team of Japanese doctors and their associates to a community. They would announce that plague had been discovered nearby, and that all residents must be inoculated against the dread disease. The people were not given an antiplague vaccine. Instead, plague germs were injected into the local citizens. This was a tactic employed by both Unit 100 and Unit 731 in Manchuria.<sup>15(pp96–99)</sup>



Cholera was also tested extensively. Beijing's Unit 1855 commander once boasted that his laboratory produced sufficient cholera germs to wipe out the entire world population. A typical operation involved injecting prisoners with cholera germs, and then releasing them among the general population. Cholera would spread, then the Japanese would send in medical personnel to examine the sick and the dying, and to try different methods of treatment. Dogs were also used by Unit 1855 as vectors for cholera transmission. They were fed pork that was infected with cholera germs and then released. When the cholera infected the dogs and made them vomit, other dogs would ingest the vomit and become infected. Diarrhea would follow, and the dogs' feces would spread the disease among animals and people. At least 20% of those infected with cholera by this method died. Army Captain Kojima Takeo was a member of the cholera team that participated in the operation.<sup>93</sup> Fifty years later, he recalled that,

The Chinese had a saying about us, that Japan had a 'three-way complete policy: burned completely, killed completely, and pillaged completely.' Yet, when we were doing those things, we had no sense of guilt, or of doing something wrong. It was for the emperor—for the country!<sup>93(p250)</sup>

Contaminating wells with pathogens was another BW warfare method. Unit members dropped hundreds of kilos of typhoid, typhus, paratyphoid A and B, cholera, and other pathogens into thousands of wells throughout China and Manchuria.<sup>31,33,59,67,90</sup> In 1942, villagers in Zhaiqian drank water from contaminated wells and a typhoid epidemic erupted within a short time. Survivors later counted 400 deaths from an original population of roughly 600.<sup>94</sup> Wells in and around Harbin were filled with barrels of typhoid pathogens in 1941 and 1942. Results were similar to those achieved in Zhaiqian, only on a larger scale.<sup>34,39,67</sup> There is at least one report that BW troops in July 1942 distributed bottles of germs along the Zhejiang-Jiangxi Railway

line, causing outbreaks of typhoid fever that led to the deaths of more than 10,000 people.<sup>95</sup>

Different foods contaminated with an assortment of pathogens were also used extensively to spread disease. One incident involved the distribution to villagers of 3,000 sweet buns containing pathogens. Many died after eating the treats.<sup>33(p286)</sup> Food was scattered by the roadside in other incidents. It would then appear to local Chinese as if the Japanese abandoned their food during a hasty retreat. The Chinese would eat the food; most became sick and many eventually perished.<sup>15(pp77-78)</sup>

In summary, the BW units explored almost any mechanism that might be feasible to distribute germs from the multitude of pathogens their laboratories manufactured. Few parts of China or Manchuria escaped Japanese medical units testing the prototype BW weapons being developed. Large-scale field BW tests were halted in 1943, although the reasons for terminating the tests have not been disclosed. One possibility may be that with the war beginning to go badly for the Japanese, the army could no longer afford to expend huge sums of money, other resources, and highly skilled technicians to conduct large-scale experiments. Villages and towns continued to be exposed to BW incursions until the Japanese surrender in 1945, but these later episodes were on a diminishing scale. Nevertheless, BW field tests were responsible for hundreds of thousands of casualties in China and elsewhere.<sup>33,90,96-100</sup> This estimate does not include a calculation of postwar deaths. These losses were caused by a series of epidemics that can be traced directly to infected animals released by the Japanese from their research facilities in the closing weeks of the war. Harbin and environs experienced eruptions of plague throughout the late 1940s, and suffered at least 30,000 deaths.<sup>101</sup> Changchun and its suburbs were exposed to epidemics of plague, glanders, and anthrax, in 1946, 1947, and 1951. The death rate there was very high. Parts of the city were uninhabitable until the mid-1950s. Communities located near other research facilities endured similar disasters.<sup>15(pp99-100)</sup>

### **"FREE-LANCE" MEDICAL PROCEDURES AND EXPERIMENTS ON PRISONERS OF WAR**

The Japanese won a series of stunning and rapid victories in the few months that followed their December 7, 1941, attack on Pearl Harbor. They conquered much of Southeast Asia, and captured approximately 140,000 European soldiers and 180,000 Asian troops, along with territorial plunder. Thousands of Asian soldiers died in the first few weeks of captivity. The rest were freed within the following months.<sup>40(pp17-18)</sup> The Europeans who survived

their capture were destined to endure 4 years of captivity characterized by nearly unbearable suffering. Some of these prisoners also were subjected to medical procedures, whether for purposes of training medical staff, conducting research, or securing organs for various reasons. These activities are characterized as "free-lance" in this discussion because they did not necessarily come under the control of any established research program.

## Procedures for Medical Training Purposes

Senior medical officers used prisoners to teach students the art of surgery. These training exercises were performed throughout China during the war.<sup>6,35</sup> There was an ever-increasing shortage of field doctors, with the result that many people with little or no previous surgical training were pressed into service. Elderly men who had a modicum of medical training, but who could not even handle surgical instruments, as well as ophthalmologists and pediatricians, were being sent into the field.<sup>102(p146)</sup> They received on-the-job training by participating in demonstration lessons on healthy prisoners. Three of these demonstration “lessons” will be presented, although there were many others.

One such demonstration took place in the Philippines in 1942.<sup>103</sup> A surgeon ordered some soldiers to bring a healthy Filipino male into a field where he had gathered some students as observers. The surgeon spread a sheet on the field, placed a mask over the nose of the victim, and anesthetized him. He then surgically opened the man’s abdomen, “removed his appendix and sewed him back up. Then, the lesson over, the surgeon pulled out a gun and shot and killed the patient.”<sup>103</sup>

A somewhat more medical demonstration lesson occurred in January 1942 in a municipal hospital in China’s Shansi province. After lunch one day, the hospital director met with seven or eight young doctors, an accounting officer, a dentist, and a pharmacist, telling them that they were about to observe an “operation exercise.” Two healthy Chinese men were brought into the operating room. One was given certain procedures that the gathering did not observe. The other was anesthetized by a female nurse who also cooed to the victim in Chinese, “sleep, sleep, sleep.” One of the medical observers asked the surgeon “who was about to administer... lumbar [*sic*] anesthesia if he wasn’t going to disinfect the point of injection. ‘What are you talking about? We are going to kill him,’ he replied.”<sup>102(p149)</sup> Once asleep, the patient’s healthy appendix was removed. Then, one of the doctors amputated one of the patient’s arms. The Japanese doctor also practiced techniques on this patient for suturing intestines.<sup>102(pp147–149)</sup>

Sometimes even the experienced senior doctor did badly due to overwork and exhaustion. On one occasion, a hospital director, whose surgical training was evidently limited, cut into an intestine and then showed his audience how to suture the intestine. He was called away to answer a telephone call, and “one doctor observed the director’s work and noticed something wrong: ‘It’s sewed up back-

wards!’ We all laughed.”<sup>102(p149)</sup>

These three examples, although not representative of all such procedures, demonstrate that this approach to “training” clearly reduced the human subject to an expendable material. As I indicated earlier in the chapter, the commission of these free-lance procedures indicates the degree to which the Japanese failed to control elements within their empire, whether military or civilian. These are the product of the collapse of military and medical ethics.

## Experiments for Research Purposes

Prisoners were used in a number of “free-lance” research efforts in territories occupied by Japan. Japanese doctors conducted two of their most notorious experiments—one on malaria, the other on nutrition—at Rabaul on the island of New Britain. Captain Hirano Einosuke of the Malaria Prevention Section of the Water Purification Department (a *nom de guerre* of the Japanese BW program) on the island sought to discover a cure for malaria. In one experiment using nine POWs as research subjects, he injected several of the men with malaria-contaminated blood extracted from Japanese soldiers suffering from the disease. The subjects were known to be malaria-free, and Hirano hoped to develop a technique that would provide immunity to malaria. He failed in this experiment.<sup>14(pp151–154)</sup> In another experiment, Hirano used blood from local villagers known to be immune to malaria, and injected this blood into several other POWs thought to be malaria carriers. He told one of the prisoners that, “he wanted to see what would happen.”<sup>14(p153)</sup> Two of the men died shortly after receiving the injections.

Dr. Hirano was also interested in nutrition, specifically how little food humans required to stay alive. Hirano and another doctor, Lieutenant Fushita Shigeo, began an experiment in September 1944 on 13 prisoners.<sup>14(p150)</sup> Each of the prisoners was weighed by one of two medical orderlies, their weight being recorded in a book. Fushita then told the men that they were going to be fed a daily diet that consisted exclusively of 660 grams of peeled cassava root per meal. The peeled cassava root was supplemented each meal with about one-quarter pint of a liquid that was called soup, and one-half pint of water. They were fed this diet for 30 days. At the end of the 30 days, two of the men had died. The remaining 11 prisoners were weighed again, and their new weights were recorded in the medical orderly’s book. They again were given the 30-day diet of peeled cassava root, thin soup, and water. Two more men died. The remaining nine men were

## EXHIBIT 16-8

## GOVERNMENT-SPONSORED HUMAN VIVISECTION

Human vivisection on prisoners of war (POWs) and civilians also occurred within the confines of Imperial Japan's most prestigious medical schools and universities. For example, the medical school of Kyushu Imperial University (located in the city of Fukuoka on Kyushu Island) was one of the most important medical training facilities in Japan. Its professors were considered to be among the finest scholars within the Empire. Senior professors took part in the vivisection experiments,<sup>1</sup> while young interns either assisted their superiors in the experiments, or observed the activity. These experiments included: replacing blood with sea water; excising lungs, stomachs, livers, and other organs from POWs; interrupting blood flow from arteries of the heart to determine the time death would occur from such a procedure; and drilling holes in craniums, then inserting scalpels into the brain to determine what, if anything, medically useful could be discovered from the procedure.<sup>2,3</sup>

Vivisections and dissections were also used for nonmedical purposes. Ishibashi Naokata worked as a civilian assistant in several Japanese army laboratory facilities. While stationed in Hangzhou, China, Ishibashi observed a number of prisoner vivisections and dissections in 1940. He recalled later that the Japanese secret police, *the kempeitei*, used vivisections and dissections as convenient execution weapons. He remembered vividly one incident in which two Chinese prisoners suspected of being guerrilla soldiers were killed. It was near supper time one day when he and some of his friends were told that a "dissection" was to take place. He went to the execution site, observed that a large hole had been dug in the ground, and that two blindfolded Chinese were sitting near the hole. A soldier decapitated them. "Blood from the carotid artery shot up two meters into the air, as if it were gushing from a hose."<sup>4(p217)</sup> The two men were immediately dissected. "The chest cavity was opened and the heart was removed and placed on a scale for weighing. The heart was still beating, and it made the scale weights clank together."<sup>4(p217)</sup>

Researchers investigating the problem of venereal disease in "Comfort Women" (women forced into sexual service) used vivisection to learn about the various stages in the development of the infection. Failing to achieve results by injecting women with syphilis, the doctors turned to a "system of direct infection through sexual contact."<sup>5(p163)</sup> Prisoners, one of whom had been identified as suffering from syphilis, were forced to have sexual intercourse. The healthy partner's progress was monitored carefully. Once he or she became infected, the "progress of the disease would be observed closely to determine, for example, how far it advanced the first week, the second week, and so forth."<sup>5(p164)</sup> At a certain stage in their studies, the researchers engaged in "live dissection to investigate how different internal organs are affected at different stages of the disease."<sup>5(p164)</sup>

Several episodes of vivisection involved captured American airmen. One took place in the South Pacific on Dublon Island, Truk. Surgeon Captain Iwanami Hiroshi commanded a group of medical officers on the island. In July 1944, he asked his group if any of them would like to experiment on some prisoners. Surgeon Commander Okuyama and Surgeon Lieutenant Nabetani agreed to perform some experiments. Eight prisoners were used in these tests. Two of the men had tourniquets tied tightly around their arms and their legs. The tourniquets were kept in place for 7 or 8 hours, interrupting blood circulation to the extremities. The two men died of shock within minutes after the tourniquets were removed from their limbs. They were dissected, and different portions of the bodies were examined. Dr. Iwanami kept the skulls as souvenirs; these were eventually sent to the Naval Medical School in Japan.<sup>2(pp164-165)</sup>

One of the most notorious examples of vivisection performed by Japanese medical practitioners occurred at Kyushu Imperial University.<sup>2</sup> This case involved 14 physicians and a nurse. Eight captured American Airmen had been placed in a detention barracks. On learning of the airmen's capture, one of the university's doctors cajoled the prison commander to turn the fliers over to the university's medical school for experimentation. Operations on the men were performed on at least 4 separate days in May and June 1945. In one operation, a lung was removed from each of two prisoners. On a second occasion, doctors removed the stomach, heart, and liver from two other POWs. The third experiment led to the death of an airman whose brain was damaged in the course of surgery to examine the function of the trigeminal nerve. Three American fliers were used in the fourth and final test. The doctors operated on stomachs, gall bladders, livers, and hearts. All eight men used in the experiments died on the operating table, which, as Professor Roland notes, "was a poorly equipped dissecting room in the anatomy department."<sup>2(p158)</sup>

Sources: (1) Daws G. *Prisoners of the Japanese: POWS of World War II in the Pacific*. New York: William Morrow & Co.; 1994: 322-323. (2) Roland CG. Human vivisection: The intoxication of limitless power in wartime. In: Moore B, Fedorowich K, eds. *Prisoners of War and Their Captors in World War II*. Oxford: Berg; 1996: 149-155. (3) Tanaka Y. *Hidden Horrors: Japanese War Crimes in World War II*. Boulder, Colo: Westview Press; 1996. (4) Statement of Ishibashi Naokata. In: Gold H. *Unit 731 Testimony*. Tokyo: Yen Books; 1996: 214-218. (5) Statement of Nishino Rumiko. In: Gold H. *Unit 731 Testimony*. Tokyo: Yen Books; 1996: 159-166.

permitted to return to the normal prisoner diet: one-half pound of cooked rice and a pint of soup daily, supplemented on occasion with a small sweet potato or one-half of a coconut per meal. Captain Hirano was reported to have been disappointed at the results of his test. He expected the men would gain weight on the diet. They did not.<sup>104</sup>

These two “experiments,” although clearly unethical and lethal, are not the worst of the atrocities committed upon prisoners. That distinction must clearly be held for the vivisection and immediate postmortem dissections that were done by some Japanese military and medical personnel.

### **Vivisection and Immediate Postmortem Dissection**

Japanese war crimes trials in the postwar decade, and published personal recollections of participants, demonstrate conclusively that both civilian and military medical personnel engaged in vivisection and immediate postmortem dissection practices on a massive scale. For purposes of clarification, vivisection is the dissection of a living animal or being,

usually, but not always, accomplished with the aid of an anesthetic. Immediate postmortem dissection refers to those instances in which death, usually accomplished for the purposes of facilitating research, was instantaneously followed by dissection. Doctors, and their support staff, conducted both vivisections and immediate postmortem dissections throughout the extensive Japanese empire. Sometimes, as described above, these were employed as teaching tools. At other times, they were utilized as the final stage of an experiment. They were also employed as one of the devices used to extract confessions from prisoners. Finally, vivisections and immediate postmortem dissections were carried out to rid prisons of common criminals, or prisoner of war camps of individuals who had offended Japanese officers in command of the camp. A hygiene specialist, who preferred to remain anonymous, spoke for many who participated in the vivisections and immediate postmortem dissections. He told an audience in 1994 that, “personally, I feel no shame. I thought that I was really doing a good thing.”<sup>105</sup> Exhibit 16-8 details several examples of these cases.

## **POSTWAR DEVELOPMENTS**

Criticism in the West of Japan’s postwar lack of remorse for its past behavior cannot be dismissed as merely judging an Asian nation by Western Judeo-Christian moral standards. Many Asian countries (the People’s Republic of China, South Korea, the Philippine Islands, Vietnam, and Thailand, for example), remain openly bitter at the Japanese for their country’s failure to demonstrate what they see as genuine contrition for the atrocities committed in previous decades. To fully appreciate the degree to which these individuals escaped punishment, I will first briefly review the prosecution of Japanese for war crimes, then look at the society into which the major perpetrators were assimilated after the war.

### **Prosecution of Japanese War Criminals**

Within Japan, some Japanese political and military leaders who qualified under the “A” Class war crimes definition (individuals deemed responsible for planning actions that were known to be violations of international conventions) of the victorious Allies, were tried, convicted, and sentenced to death or to prison terms in the “Tokyo War Crimes Trial,” convened in 1946 and concluded in 1948.<sup>106</sup> (The court’s full title was: International Military Tribunal of the Far East [IMTFE].) Among these war criminals was Tojo Hideki, Japan’s prime minister during World War II.

Determined to punish free-lance medical war criminals, Allied nations in the Pacific region (but outside of Japan) conducted extensive manhunts designed to capture and to place on trial as many as possible of those doctors who survived the war and could be located. Some individual free-lance perpetrators of medical atrocities were tried in Australia and other Pacific countries in the late 1940s, as well as in the decade of the 1950s.<sup>14,40</sup> In addition, a handful of relatively unimportant biological warfare (BW) and chemical warfare (CW) individuals known to have either worked in the biomedical research facilities, or to have supported the efforts of those who engaged in BW and CW involuntary human experiments, were tried by the Soviets in December 1949 in the Siberian city of Khabarovsk.<sup>33(pp104,112–113)</sup>

The same diligent pursuit of medical war criminals was not applied to those who engaged in government-sanctioned BW research. None of the principals, or their associates, were ever brought before a tribunal to account for their crimes. Ishii, Wakamatsu, and Kitano (the BW “Big Three”), and their closest lieutenants—for example, Ota, Masuda, and Naito—escaped prosecution. Thus there was no Tokyo Doctors trial and no Tokyo version of the Nuremberg (Doctors) Code. The crimes committed by these Japanese physicians and others faded into history. Their immoral, unethical, and unprofessional behavior was known to those who held high office in



Japan, and among the triumphant Allied nations, but Japanese and American authorities ignored their crimes and did not prosecute them.<sup>15</sup> Those who survived in the postwar era continued to receive government support. They were protected by the men in power from any accounting for their war crimes. Many enjoyed flourishing careers in medicine and science.<sup>6,15,67,107</sup> Before discussing why the Allies chose to overlook these heinous deeds, it is necessary to first examine why the Japanese themselves did not demand accountability from these medical professionals.

### The Postwar View of Japanese War Crimes

The postwar societal integration of physicians who had conducted biological and chemical warfare research can best be understood within the overall Japanese response to World War II, as well as the burgeoning American military needs in the dawning Cold War. In the postwar years, a number of views arose in Japan to explain, and even attempt to validate, these activities. For example, 50 years after his execution as a war criminal, Tojo Hideki, Japan's wartime prime minister, has been portrayed in a Japanese motion picture (*Pride: A Fateful Moment*) as a kindly grandfatherly figure who was a great patriot unfairly maligned by the vengeful victors of World War II. The film's principal financial backer called for Japanese film makers, historians, print media, and other molders of public opinion to provide the coming generation with a history of Japan that will restore national dignity and pride.<sup>108</sup>

On those occasions when public discussion is directed toward Japan's role in World War II, the government's official response generally has been that their country was not the aggressor. Newspaper headlines as late as 1996, 1997, and 1998 reveal official Japan's rejection of the verities of the past: "OKAYAMA Enters Sex-Slave Fight; Prefectural Assembly Seeks to Cut Description from Texts"<sup>109</sup>; "Koreans Lose Forced Labor Suit, Government Can't Be Held Responsible, Court Rules"<sup>110</sup>; "Set Masochistic History Texts Right: Group Members Claim No Evidence to Prove Force Was Used on 'Comfort Women'"<sup>111</sup>; and, finally, "'Comfort Women' Report Hurts UN."<sup>112</sup>

Some members of Japan's academic community have organized to counter any material in textbooks that portrays Japan unfavorably. In a follow-up to the articles cited above, History Professor Fujioka Nobukatsu of Tokyo University declared that

the tendency of historians to depict Japan as an evil aggressor had its roots in two major foreign influ-

ences—the Soviet Union and the United States...These negative views of Japan demonstrated by the world's two major powers were combined and provided the basis for postwar education here...<sup>113</sup>

Professor Fujioka is a prominent member of "The Group to Make New History Textbooks," whose objective is to produce textbooks for Japanese students that will end the "Japan bashing" that the group believes it finds in current textbooks. In reality, history textbooks in Japan faithfully follow the government view of World War II, avoiding any criticism of the military, and never acknowledging Japanese wartime excesses.<sup>114</sup> Fujioka and his supporters are members of the respectable right wing in Japanese politics. They believe that even the minimal discussion in current textbooks of Japan's role in World War II goes too far. They want an approach to teaching history that is unambiguously nationalistic. They are attracting a considerable and influential following.

Within the mainstream of the Japanese hierarchy the argument continues to be that Japan attempted to liberate, by any means necessary, much of Asia from European and American colonial domination. Their view is that Japan should not be condemned for its activities in World War II. Instead, other Asian nations should appreciate that the Japanese helped liberate them from Western imperialism. (However, there does not appear to be much support among these "liberated" nations for this contention. For the past 50 years, Chinese, Korean, Indonesian, and other Asian nations' media have bitterly and continuously criticized Japan for its wartime activities in their respective countries. The "Comfort Women" and human medical experiments scandals resonate today in print media and on television. Throughout Asia, Japan's failure to offer an appropriate apology or to provide adequate compensation to victims for its wartime misdeeds is a constant refrain in the press.)

Another popular Japanese belief is that because the United States dropped atomic bombs on Hiroshima and Nagasaki, Japan was a "victim" rather than an "aggressor" in the war.<sup>115</sup> Still others plead "ignorance" of the facts, and that whatever happened in the past is "history." The old generation is dead. Why hold the sins of the fathers against their children and grandchildren?<sup>116,117</sup> In all fairness it should be noted that the victorious Allies had not required that the Japanese populace view the death camps to see for themselves what their government had been doing during the 1930s and 1940s. This made it easier for the Japanese people and their government to simply ignore or rationalize what had happened in China.

## American Interest in Japanese Research Results

Why didn't the Allies require the Japanese people to view the camps? Why did Ishii, Wakamatsu, and Kitano escape punishment? Clearly their crimes were well-known to the Allies,<sup>118–123</sup> but two elements intervened to prevent these major war criminals from being brought to trial: (1) the advent of the Cold War and (2) American interest in human BW data.

The first of these elements—the changing relationship between the former Soviet Union and the United States that would evolve into the Cold War—was already in play when US forces gained access to the Japanese biomedical researchers. Soviet and American interests had begun to collide during the closing days of World War II. While the United States was forced to temper its aims in Europe with a series of compromises with its Allies, especially the Soviet Union, it was not under similar constraints in the Far East. Despite the formal policy that the United Nations was responsible for restoring peace to that devastated country, Japan was under American occupation. Soviet representatives in Tokyo pressed the United States relentlessly for an opportunity to interview the Japanese BW experts, ostensibly to determine whether evidence existed to try them as war criminals. The reality was that the Soviets were eager to acquire BW research data from the Japanese in order to further their own extensive BW program. The United States, already suspicious of its ally's motives, did everything possible to prevent the Japanese BW specialists from being interviewed by the Soviets.

The other consideration was American interest in securing data on human reactions to BW experiments. The United States had inaugurated its BW program in 1942, establishing a research center at Fort Detrick in Frederick, Maryland. The Detrick scientists, a remarkably talented group of microbiologists, physicists, and chemists, made astonishing progress in developing prototype BW weapons by the end of the war.<sup>124</sup> However, American scientists achieved their success by employing traditional methods of research.<sup>124–126</sup>

Army Intelligence had discovered in 1943 that the Japanese were using humans for testing purposes. This information interested the scientists at Fort Detrick as well as their superiors in the United States Army Chemical Corps. Americans were denied by law, and by medical ethical considerations, from testing humans without their consent. Researchers at Fort Detrick assumed that the Japanese, having had no such restrictions, must have been

ahead of the United States in developing BW weapons. They, as well as those American government officials who were told about the BW projects, wanted this extremely valuable human research data.

Delegations of scientists were sent from Fort Detrick to Tokyo in the autumn of 1945 (led by Lieutenant Colonel Murray Sanders)<sup>65(pp75–91)</sup>, in 1946 (led by Lieutenant Colonel Arvo Thompson)<sup>74</sup>; in 1947 (led by Dr. Norbert H. Fell, Division Chief of Planning Pilot-Engineering Section)<sup>123,127</sup>; and in 1948 (led by Dr. Edwin V. Hill, Chief of Basic Sciences).<sup>128–132</sup> Each delegation negotiated with Ishii, Kitano, and other leading Japanese BW specialists. The Japanese remained adamant on one sticking point: They wanted firm, written assurances that they would not be prosecuted for their war crimes. They said they were prepared to turn over to the Americans all of their human test data, but only after they had an agreement on immunity that could not be broken. In the end, the highest government officials in Washington agreed to these demands. None of the BW specialists were prosecuted, and, in return, the Japanese experts submitted to the Americans some limited intelligence on their work.<sup>15(Chaps13–15)</sup>

As part of the agreement to forego prosecution of the Japanese physicians who had conducted fatal biomedical research on humans, a number of debriefings were held and reports were written. One such physician, "A," provided detailed information on the anthrax research program. His report to the Chemical Corps Research and Development Command, Biological Warfare Laboratories, Fort Detrick, Frederick, Maryland, was simply titled "The Report of 'A.'"<sup>133</sup> It was regraded as "unclassified" on 6 May 1960. The report is approximately 400 pages in length with schematics detailing the fatal progression of anthrax in humans. The following material is excerpted from this report (the typist of the report made numerous typographical errors):

I have investigated 30 cases of anthrax disease, which could be classified into 3 groups: (a) percutaneous infection...; (b) peroral infection...; pernasal infection....

(a) Percutaneous infection: 1 case...7 days. Localised [*sic*] cutaneous ulcers and perifocal phlegmons (r-thigh). Some parenchymatous degeneration: Heart: Intense degeneration and interstitial edema. Liver: Hepatitis serosa III, accompanied with some hemorrhagic changes. Kidney: Glomerulonephrosis, with vacuolar degeneration of epithliums. Spleen: Splenitis infection.

(b) Peroral infection: 9 cases were infected perorally

with some food stuffs, which contain some quantity of anthrax bacillus and all patients died definitely after several days by acute abdominal symptoms and severe hemorrhagic ascites. In alimentary canals: occurred [sic] no remarkable changes in stomach and extraordinary [sic] severe hemorrhagic changes (fungous swelling of mucous membrane with hemorrhagic leucocytic reactions) of intestines, especially at ileocecal portions [sic], lower parts of ileum or sometimes all over the intestinal tracts (upper parts of ileum, duodenum [sic], jejunum [sic] or large intestine), accompanied with intense gelatinous (exudative) swelling of mesenterial fatty tissues and following severe hemorrhagic ascites, which caused the death.

(c) Pernal infection: It occurred [sic] suddenly an epidemic of anthrax disease in some prison. About 20 men in the prison were affected successively with soiled air, who [sic] which contained some quantity of anthrax bacillus and died all of them definitely after several days by severe thoracic or abdominal systems. At first they complained of

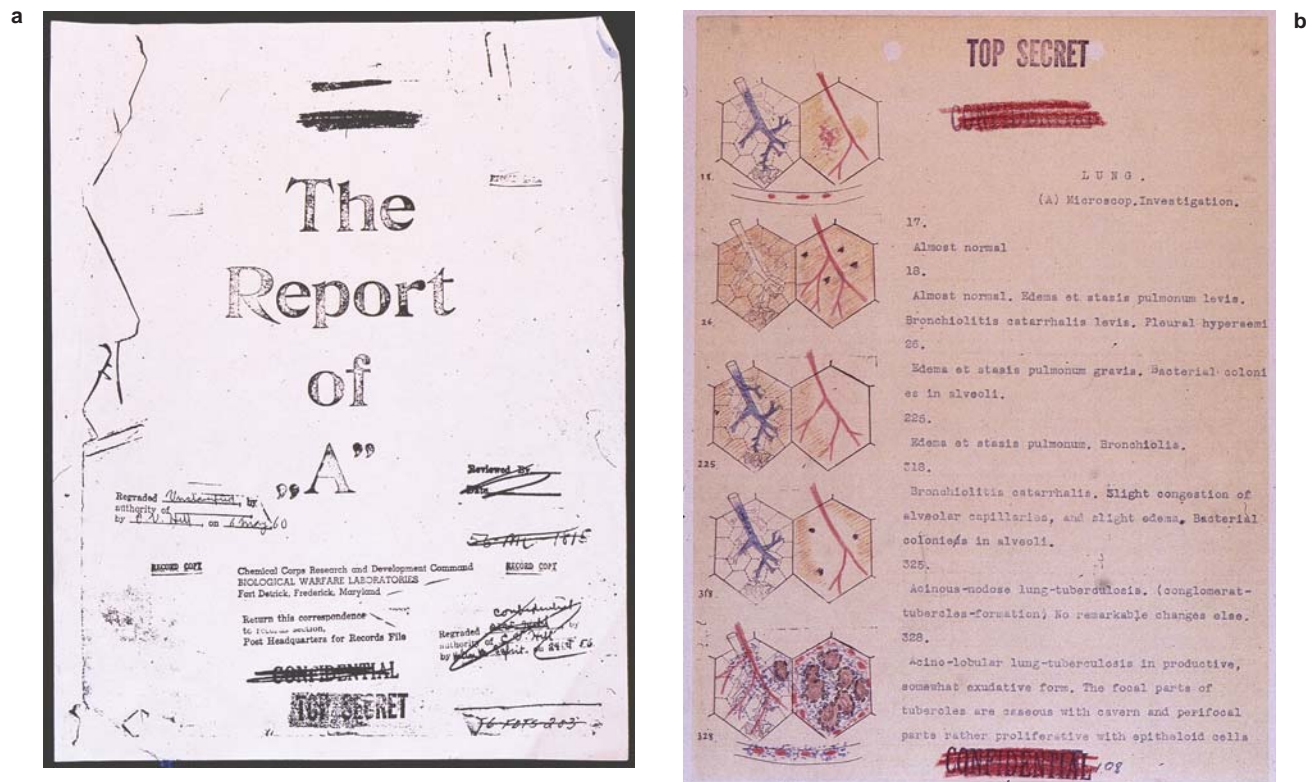
acute Tonsillitis: tonsil was the main entrance port. Then intense hemorrhagic changes, due to anthrax infection spreaded [sic] in 2 manners: a) perbronchially and b) sometimes perorally.

The report cover and one of the pages concerning disease progression in the lungs (as documented in the autopsy reports) are reproduced as Figure 16-5.

In summary, although it was clear to the American forces that the Japanese doctors had participated in activities that were clearly war crimes and were comparable to those to be prosecuted by the Nuremberg Tribunal, the Japanese doctors were not tried.

### Postwar Medical Careers of Japanese Biowarfare Personnel

The Japanese medical profession also fell victim to the postwar relaxation of moral standards. It did not engage in meaningful reforms once freed of



**Fig. 16-5.** The Report of "A." The cover page (a) and one of the interior pages (b) of a 400+ page document detailing the fatal progression of anthrax as reported by a Japanese physician involved in Japan's wartime biomedical experimentation program. [Note: This report was declassified on 8 May 1960. The "Top Secret" stamp on the top of the interior page shown as "b" should have been lined through at that time.] The information was obtained in exchange for amnesty from prosecution for war crimes.



militaristic controls. Instead, it continued along the questionable moral path outlined in the prewar and wartime decades. Few within the profession urged a return to the higher ethical standards that were so noteworthy of the medical profession in the late 19th and early 20th centuries. Thus, once freed of the danger of war crimes trials, alumni of the BW units were able to assume leading roles in the postwar Japanese medical and scientific communities. Many became presidents of universities; others served as deans of medical schools; still others continued to do research while holding professorships in Japan's most prestigious universities.<sup>67(pp279ff),134</sup> Some worked in private industry, or in government agencies, achieving distinction and public honors for their contributions to medicine and science.<sup>6,67,135</sup> (Exhibit 16-9 lists the postwar activities of several

of these men.)

The alumni of the biowarfare units were also able to participate actively in the most important medical institution created by the Japanese government in postwar Japan. Following a "request" by United States Occupation authorities, the Japanese government established the Japanese National Institute of Health (JNIH) on 21 May 1947. From its inception until 1983, every director of the JNIH, with the exception of Nakamura Keizo (May 1958–December 1966), had previously served in a BW unit.<sup>134(pp1–2)</sup> Four of the eight men who were appointed as director during this period are known to have conducted human experiments, including vivisections.<sup>134(pp1–2)</sup> Many of the vice directors received their training in BW units, and also had engaged in human tests. Wakamatsu Yujiro, previously the commander of

## EXHIBIT 16-9

### POSTWAR ACTIVITIES OF JAPANESE BIOMEDICAL RESEARCHERS

Kitano, one of the "big three" in World War II Japan's human biomedical experimentation program, published scores of papers in scholarly journals. Many of his findings were based on experiments that he and others had conducted previously in Mukden, in Shanghai, and at Ping Fan. Dr. Yoshimura Hisato, who later became President of the Kyoto Prefectural University of Medicine, published three important papers on frostbite in the *Japan Journal of Physiology* in 1950 and 1952. His papers were based upon frostbite research he conducted on humans while stationed at the Ping Fan facility. Professor Amitani Shogo of Tokyo University Laboratory for Communicable Diseases won the Asahi Prize for outstanding contributions in his field, based on research he had conducted as a member of Unit 731. Other biological warfare experts received recognition from international organizations such as the World Health Organization (WHO).<sup>1(pp80ff,141ff),2(pp286ff)</sup>

Of all the biological warfare principals, Naito Ryoichi, who had been one of Lieutenant General Ishii's closest associates, enjoyed the greatest personal success in the postwar era. Taking advantage of the American demand for blood products during the Korean War, Naito founded the *Midori Fuji*, or Green Cross Company, in 1951. Futagi Hideo, an outstanding graduate of Unit 731's training program, was a principal member of the company. Kitano headed the Tokyo branch of the organization. Relying upon their previous experience, Naito recruited at least 30 former Unit 731 scientists to serve in key positions in his company. The Green Cross Company prospered over the years, and became one of Japan's leading drug companies, even establishing branches overseas.<sup>1(pp140–141),2(pp291–292)</sup> Naito became known for his philanthropy, having donated tens of millions of yen annually to worthy causes. His prior service in biological warfare units was never mentioned publicly.

In 1988, however, it became public knowledge that the Green Cross Company knowingly distributed imported blood infected with human immunodeficiency virus (HIV). The contaminated blood was given to hemophiliac sufferers in Japan, leading to at least 400 deaths.<sup>3</sup> The Green Cross Company and four other pharmaceutical companies, with the approval of Japan's Ministry of Health and Welfare, had sold HIV-infected blood to approximately 1,800 hemophiliacs.<sup>3</sup> The company was forced to agree in 1997 to pay 24 billion yen (\$195 million US dollars) as its share of the settlement agreement between the drug companies and the hemophiliac victims families. At the same time, the Alpha Therapeutic Corporation, Green Cross' American branch, became a party to a settlement with 600 HIV-infected hemophiliacs in America. Its name badly tarnished, Green Cross was absorbed by Yoshitomi Pharmaceutical Industries Ltd., in late February 1997.<sup>3</sup>

Sources: (1) Gold H. *Unit 731 Testimonies*. Tokyo: Yen Books; 1996. (2) Williams P, Wallace D. *Unit 731, The Japanese Army's Secret of Secrets*. London: Hodder & Stoughton; 1989. (3) Pollack A. Japan blood supplier, facing HIV penalty, to be acquired. *New York Times*. February 25, 1997:C-7.



Unit 100, joined the JNIH staff during its early days. Kaneko Junichi (a former Unit 731 surgeon and an expert on constructing bacteria bombs), Asahina Shojiro (who had headed Unit 731's Department of Entomology), and Umezawa Hamao (one of the BW units' most prolific publishers of scientific papers based upon human experiments) were among the JNIH's leading staff members.<sup>134(pp1-2)</sup> At least half the JNIH staff came from the Institute of Infectious Diseases, which was associated with Tokyo University. Most of its members had served in BW units known to have engaged in human experimentation.<sup>134</sup> The rest came from the Laboratory for Infectious Disease Control (LIDC), an organization formerly based at the Imperial Army Medical College, in Toyama, Shinjuku-ku, Tokyo, the site of Ishii's old Tokyo headquarters.

The JNIH was charged officially with doing research on pathogens and vaccines, and conducting quality control studies of biological products for their safety before permitting their sales to the general public. However, from its beginnings, the JNIH had other, less overt, projects. The American Occupation Authorities and the Japanese government jointly ordered the JNIH to cooperate with the American-run Atomic Bomb Casualty Commission's (ABCC) branch offices in Hiroshima and Nagasaki. The JNIH and the ABCC were interested in observing and recording the progress of the Hiroshima survivors' (the *Hibakushas*) assorted medical problems. As Kojima Saburo, one of the first Vice Director's of the JNIH (and a former Tokyo University Professor who had also served at the Ping Fan research facility) later wrote, "We, the intelligent scientists had equally thought that we must not miss this golden opportunity"<sup>115(p119)</sup> to study the effects on humans of atomic radiation.<sup>115</sup>

The JNIH helped the ABCC to coerce *Hibakusha* to cooperate in their radiation studies. Victims were required to come to ABCC facilities, remove their clothing, be x-rayed, and provide researchers (primarily JNIH staff) with blood samples.<sup>115(p120)</sup> Families of *Hibakusha* who died of their burns were pressured by the JNIH to permit autopsies to be conducted on their loved ones.

Researchers at the JNIH also performed experiments on patients. There is documentary evidence that for more than 30 years, JNIH staff tested patients with pathogens and unapproved vaccines without the patients' consent.<sup>134(pp1-2)</sup> For example, Dr. Kitaoka Masami, known to have conducted human experiments during the war, used *Rickettsia tsutsugamushi* on mental patients in Niigata Prefecture without their consent from 1952 to 1956. Eight patients died; another committed suicide. Dr.

Kitaoka served as JNIH Vice Director from March 1970 until November 1973.<sup>134(pp2-4)</sup>

In 1951, Dr. Fukumi Hideo conducted experiments on infants hospitalized at the First National Hospital. He acknowledged that he had the babies ingest what he called the "alpha" and "beta" types of *Escherichia coli*, and he found them to be "pathogenic."<sup>134(pp1-2)</sup> Fukumi conducted similar experiments in 1952 at an orphanage in Nagoya City.<sup>134(pp1-2)</sup> In the next decade, Dr. Fukumi and his associates tested members of Japan's Self Defense Forces with vaccines still in the developmental stage. None of the vaccines were approved for use outside the laboratory. Nevertheless, from 1967 to 1971, Dr. Fukumi and others used *shigella* on unsuspecting soldiers, and then injected them with the unapproved vaccines. Of the 1,089 men in the tests,<sup>134(p5)</sup> 577 became ill with *shigellosis*.

By the early 1970s most, if not all, of the former BW units' members had either retired or were dead. However, they had trained their successors. In particular, JNIH staff followed the dictates of drug companies, rather than pursuing practices more consistent with promoting the national health. They held up free distribution of polio vaccines for 3 years (1959-1961), made mandatory smallpox vaccination and influenza vaccination for children of kindergarten age (although the smallpox vaccine was too strong and had side effects), and used an influenza vaccine that was untested. It is estimated that the smallpox vaccination program resulted in the deaths of 20,000 children from 1971 to 1980.<sup>134(p5)</sup>

In 1982, the JNIH was warned that blood products could transmit the human immunodeficiency virus (HIV), which causes acquired immunodeficiency syndrome (AIDS). The warning was ignored; the JNIH continued until December 1985 to approve for distribution blood it knew was contaminated. The result was the Green Cross scandal.<sup>135</sup> Other scandals plagued the JNIH until 1 April 1997, when its reputation had become so tarnished that the JNIH was forced to change its name to the National Institute of Infectious Diseases (NIID). It is too soon to know if the name change will result in a change in the postwar culture within this agency concerning research and medical ethics.

In summary, at the end of World War II, the majority of the Japanese biowarfare experimenters were easily assimilated back into the society and profession from which they had come. They assumed significant roles in universities, industries, and the newly founded Japanese National Institute of Health. Unfortunately, they had not relinquished the values and views that had manifested themselves in the excesses of the biowarfare program.

They trained their successors who then assumed these positions and their practices. The result was that the problems continued in these institutions, as evidenced by the Green Cross scandals. A new generation is now poised to assume these positions,

a generation with no personal contact with the biowarfare experimenters. Only with time will it be known whether or not the influence of these biowarfare personnel continues within the medical establishment.

## JAPAN IN THE 21ST CENTURY

The Japan that has entered the new millennium is a different country from the Japan that existed before World War II. The ultramilitarists no longer dominate society. Emperor-worship is essentially a thing of the past. The current emperor is a fixture in society akin to that of the British monarch. The nation is essentially a democracy, albeit one that is politically conservative. Although there is poverty in Japan as well as great wealth, there is a healthy, vibrant, middle class that wields some influence over economic and political decisions. Japan, overall, is a rich and peaceful country.

Japan, despite having changed so much outwardly, is like any other country that has a long cultural history. Change may come to everyday activities, but the underlying culture and moral standards are more slow to change. Within Japan there has been a struggle for the past 50 years to shape the story of Japan's history in World War II. There are those who have pushed for full disclosure and discussion of Japan's wartime biomedical experimentation programs. And there are those who have attempted to shield the Japanese public from any discussion, especially in textbooks, of Japan's activities. These struggles have been worked through

the judiciary system, and not long ago reached the Supreme Court in Japan, which ruled in favor of the inclusion in history textbooks of an account of Japan's BW and CW wartime programs. For more than 50 years the judiciary had endorsed censorship of textbooks, despite postwar Constitutional guarantees of freedom of the press and speech. That has finally begun to change. For example, Professor Ienaga Saburo sought for several decades to publish in his history textbook the fact that Unit 731 and other BW units were part of the Japanese military, and that they had engaged in human experiments. He struggled through the courts for 33 years before he received an affirmative ruling in August 1997. The Supreme Court, the highest judicial authority in Japan, by a three-to-two vote, agreed that there were sufficient uncontested historical facts to justify the inclusion in history textbooks of an account of Japan's BW and CW wartime programs. All five justices endorsed the general concept that the government has an inherent right to employ textbook censorship.

However, the three justices who ruled in his favor agreed that, "A country whose textbooks lie...will inevitably collapse."<sup>136(pA16)</sup>

## CONCLUSION

**EDITORS' NOTE:** *Dr. Harris, the author of this chapter, died before this conclusion was finalized. The following conclusion represents the opinions of the editors.*

In the process of writing and finalizing this chapter, a number of reviewers commented on what was succinctly characterized by one of them as: "The chapter seems to be a catalog of medical abominations." In some regards that is exactly what this chapter is, but it is more than just that. The listing was lengthy because the programs were extensive. The Japanese biowarfare program was an attempt to fully explore biowarfare as a new type of warfare, unlike anything that had been used before. Ishii Shiro, the architect of the program, viewed germs as a new weapons system. With that rationale, it is easy to understand the depth and breadth of his biomedical research programs. In addition, within the context of the social and political forces in Japan at that time, it is perhaps more understandable how these massive programs came to be. The purpose of this chapter, however, has not been merely to catalog the experiments and their associated human costs. It has also been to review, perhaps painfully, the role that the United States played, not in initiating or supporting these activities directly, but in trading prosecution for information that served our own national interests. Whatever else one may wish to believe about that era, the hard truth is that at the same time the Allies were prosecuting the Nazi doctors and sentencing them to death, we were gathering data from the Japanese doctors and sheltering them from prosecution. The fundamental lesson to be understood by doctors is that when they stray from the traditional concepts of medicine—saving lives, healing, and ameliorating pain and suffering—they enter into a territory that is fraught with danger, not only for their patients, but also for the morality of medicine as a profession.

## REFERENCES

1. Statement of Naganuma Setsuji. In: Gold H. *Unit 731 Testimony*. Tokyo: Yen Books; 1996.
2. Statement of Tamura Yoshio, a Unit 731 laboratory researcher, *NHK TV* broadcast 1992.
3. Statement of Dr. Iwasa Ken in an interview with BBC television correspondent Philip Short, 1994.
4. Statement by a physician who preferred to remain anonymous, *Dateline NBC*, August 1995.
5. Statement of Shinozuka Yoshio, a former Unit 731 scientist, *NTV* [Nippon Television] broadcast, 1995.
6. Gold H. *Unit 731 Testimony*. Tokyo: Yen Books; 1996.
7. Goldhagen DL. *Hitler's Willing Executioners: Ordinary Germans and the Holocaust*. New York: Vintage Books; 1997.
8. Muller-Hill B. *Murderous Science: Elimination by Scientific Selection of Jews, Gypsies, and Others, Germany, 1933–1945*. Fraser GR, trans. Oxford: Oxford University Press; 1988.
9. Kater MH. *Doctors Under Hitler*. Chapel Hill: University of North Carolina Press; 1989.
10. Lifton RJ. *The Nazi Doctors: Medical Killing and the Psychology of Genocide*. New York: Basic Books; 1986.
11. Proctor RN. Nazi medicine and public health policy. *Dimensions*. 1996;10(2):29–34.
12. Seidelman WE. Whither Nuremberg? Medicine's continuing Nazi heritage. *Medicine and Global Survival*. 1995;2(3):148–154.
13. Powell JW Jr. Japan's biological weapons, 1932–1945. *Bull At Sci*. October 1981.
14. Tanaka Y. *Hidden Horrors: Japanese War Crimes in World War II*. Boulder, Colo: Westview Press; 1996.
15. Harris SH. *Factories of Death: Japanese Biological Warfare, 1932–45, and the American Cover-Up*. London: Routledge; 1995.
16. Tomlin VV, Berezhnoj RV. Exposure of criminal activity on the part of the Japanese military authorities regarding preparations for biological warfare. *Voenny Meditsinskij Zhurnal*. 1985;8:26–29.
17. Large SL. *Emperor Hirohito & Showa Japan, A Political Biography*. London: Routledge; 1992: 1.
18. Harries M, Harries S. *Soldiers of the Sun: The Rise and Fall of the Imperial Army*. New York: Random House; 1991: Chapters 46, 47.
19. Totsuka E [a Japanese lawyer representing Chinese victims and/or their heirs]. Personal Communication [e-mail letter to Sheldon Harris], 17 May 1998.
20. Hisahiko O. A nation caught off guard. *Tokyo: Japan Times Weekly International Edition*: December 2–8, 1996.
21. Hisahiko O. Some common sense. *Tokyo: Japan Times Weekly International Edition*. 30 December 1996–12 January 1997:7.
22. Herskoviz J. Lest we remember too much. *Tokyo: The Japan Times Weekly International Edition*: 3–9 June 1996: 7.
23. Smith C. War and remembrance. Singapore: *Far Eastern Economic Review*. 25 August 1994:22–26.
24. Newsletter. *The Association to Reveal the Historical Fact of Germ Warfare by the Japanese Armed Forces*. Tokyo: Tokyo-Hibiya Law Office; July 1996: 31.
25. Moffett S. Past perfect: Calls to rewrite recent history gain strength. Singapore: *Far Eastern Economic Review*. 21 November 1996:26–30.

26. Ding. I. Japanese war criminals honored as heroes. *New York Times* [advertisement]. 15 December 1996:E14.
27. Professor Robert N. Proctor to Professor George Annas, University Park, Pa. 22 December 1996. Cc. To this writer.
28. Statement of anonymous scientist, Dateline NBC, August 1995 telecast.
29. Record Group 153, Records of the Office of the Judge Advocate General Army. Document 9305, POW, Document 9309, POW, and memo from CINCFE to War Department for WDGID, 6 May 1947. National Archives.
30. Tsuneishi K. *Research Guarded by Military Secrecy*. Tokyo; c1985: 89.
31. Tsuneishi K. *The Germ Warfare Unit That Disappeared: Kwantung Army's 731st Unit*. Tokyo: Kai-mei-sha Publishers; 1981: 105–110.
32. Typescript deposition of Naito Ryoichi, 24 January 1947, under the title “Motoji Yamaguchi,”: 13. Record Group 333. Allied Operational and Occupation Headquarters, Boxes 1772/330. The National Archives.
33. *Materials on the Trial of Former Servicemen of the Japanese Army Charged With Manufacturing and Employing Bacteriological Weapons* [also known as the Khabarovsk Trial]. Moscow: Foreign Languages Publishing House; 1950.
34. Address by Surgeon Colonel Ishii on 16 February 1939. [It is unknown whether Prince Chichibu or other members of the royal family attended this session.] In: Current events tidbits. In: *The Military Surgeon Group Magazine*. Tokyo. April 1939, Number 311.
35. Roland CG. Human vivisection: The intoxication of limitless power in wartime. In: Moore B, Fedorowich K, eds. *Prisoners of War and Their Captors in World War II*. Oxford, England: Berg; 1996.
36. Unit 731, The Bacteriological Unit Is Still Alive. Nippon Television broadcast, 1995.
37. Behr E. *Hirohito: Behind the Myth*. New York: Villard Books; 1989.
38. Reischauer EO. *Japan, Past and Present*. 3rd ed, rev. New York: Alfred A Knoph; 1967.
39. Beasley WG. *The Rise of Modern Japan*. New York: St. Martin's Press; 1990.
40. Daws G. *Prisoners of the Japanese: POWs of World War II in the Pacific*. New York: William Morrow & Co; 1994.
41. Dower JW. *War Without Mercy: Race and Power in the Pacific War*. New York: Pantheon Books; 1986.
42. Doak KM. What is a nation and who belongs? National narratives and the ethnic imagination in twentieth-century Japan. *Am Hist Rev*. 1997;102(2):283–309.
43. “Stenographic Transcript of Interrogation of Major Yoshisada Masuda in Tokyo Japan by Lieutenant Colonel A.C. Thompson on 9 February 1946,” in document titled “Stenographic Transcript of Lieutenant General Masaji Kitano in Tokyo by Colonel S.E. Whiteside and Colonel A.H. Schwichtenberg on 11 January 1946” Doc. 004, Dugway Proving Grounds Library, Dugway, Utah.
44. Wray H, Conroy H. *Japan Examined: Perspective on Modern Japanese History*. Honolulu: University of Hawaii Press; 1983.
45. Anonymous. “*The Brocade Banner: The Story of Japanese Nationalism, 23 September 1946.*” Record Group 319, Publication File, 1946–51, Box 1776. The National Archives: 49–50, 61.
46. Weighley RF. Review of *Soldiers of The Sun*. *New York Times Sunday Book Review Section*. 19 April 1992:13.
47. This author's telephone interview with Shuichi Kato, MD, Professor of Medicine, University of California at Davis, 6 March 1989.
48. This author's interview with Dr. Ogowa Takemitsu, Toronto, Canada, 16 June 1998.



49. Faden RR, Lederer SW, Moreno JD. US medical researchers, the Nuremberg Doctors Trial, and the Nuremberg Code. *JAMA*. 1996;276(20):1667–1671.
50. Telephone interview with Dr. Suichi Kato, Professor of Medicine, University of California at Davis, 6 March 1989.
51. Interview with Dr. Leroy Vego, Adjunct Professor of Orthodontics, University of California at Los Angeles, 14 December 1997.
52. Interview with Dr. Adam J. Singer, Chief of Urology, Kaiser Permanente, Woodland Hills, California, 24 February 1998.
53. Interview with Dr. Roy Vego, Adjunct Professor of Orthodontics, University of California at Los Angeles, 1 December 1997.
54. Daniel Wikler, Professor of Philosophy and Bioethics, University of Wisconsin, Madison, e-mail 28 October 1997.
55. Dr. Charles Roland, Hanah Professor of Medical History, MacMaster University, Ottawa, Canada, e-mail 30 October 1997.
56. Katz J. The Nuremberg Code and the Nuremberg Trial. *JAMA*. 1996;276(20):1662–1666.
57. Sonis J, Gorenflo SW, Poonam J, Williams C. Teaching of human rights in US medical schools. *JAMA*. 1996;276(20):1676–1678.
58. Stryker J. Tuskegee's long arm still touches a nerve. *New York Times*. 13 April 1997.
59. Tsuneishi K, Asano T. *The Bacteriological Warfare Unit and the Suicide of Two Physicians*. Tokyo: Shincho-Sha Publishing Co; 1982. English translation located in the Fort Detrick Archives, Frederick, Maryland.
60. Han and Zhou. Records of Actual Events of the Bacteriological Factory in Ping Fang.
61. Dong Zhen Yu, "Kwantung Army Number 731."
62. Cook HT, Cook TF. *Japan at War: An Oral History*. New York: The New Press; 1992.
63. Dr. Benjamin Garrett, Chemical Disarmament Specialist, Fairfax Station, Virginia, letter 7 June 1997.
64. Harris R, Paxton J. *A Higher Form of Killing: The Secret Story of Chemical and Biological Warfare*. New York: Hill and Wang; 1982.
65. Interrogation of Lieutenant Colonel Seiichi Niizuma by Lieutenant Colonel Murray Sanders, 1 October 1945, typescript "Report on Scientific Intelligence Survey in Japan, September and October 1945," Volume V, "Biological Warfare," 1 November 1945. Document 003, Fort Detrick Archives, Frederick, Maryland.
66. Handwritten translator's notes of an unidentified microbiologist's testimony to American interrogators during the post-1945 occupation. The note does not bear a date nor a specific locale, but, presumably, the microbiologist was questioned in Tokyo. See document entitled "Ishii, Shiro, Lt. General (Medical Officer)," Record Group 331, Box 1434, folder 13, The National Archives.
67. Williams P, Wallace D. *Unit 731, The Japanese Army's Secret of Secrets*. London: Hodder & Stoughton; 1989.
68. Han X. Bacterial factory in Beiyinhe, Zhong Ma City. *Harbin Historical Chronicle*. 1984:1.
69. Segment 36. In: The night of the shock: The last will and testament of a general: The diary of General Endo Saburo. Tokyo: *Mainichi Shimbun*. 21 December 1982. Ms. Reicko Rose, trans.
70. Han Xiao, "Bacterial Factory in Beiyinhe, Zhong Ma City,"
71. This author's interview with Mi Hon Xiao, Changchen, Peoples Republic of China, 23 September 1998.

72. Han, Yin. The Laborers in the Japanese Invader Troop 731 camp.
73. This author's interview with Professor Hao Yunfeng, Professor of Welding, Harbin Institute of Technology, Harbin, China, 24 April 1984.
74. Thompson AT. *Report on Japanese Biological Warfare (BW) Activities, 31 May 1946*. Army Service Forces. Camp Detrick, Frederick, Md: 2. 4–6. Fort Detrick Library Archives.
75. Record Group 153. Records of the Office of the Judge Advocate General (Army). The National Archives.
76. Morimura S. *The Devil's Gluttony*. Vol. 1. Tokyo: Kadokawa Shoten; 1983–1985.
77. Sidu H. *The Bamboo Fortress: True Singapore War Stories*. Singapore: Native Publications; 1991.
78. Statement of Maruyama Shigeru. *Saikinsen Butai*. Ryota Okumura, trans.
79. Statement of Daikai Yoshiaki. *Saikinsen Butai*. Ryota Okumura, trans.
80. *Singapore Straits Times*. 19 September 1991:1, 3; 11 November 1991:1, 3.
81. Naval Aspects of Biological Warfare. 5 August 1947. Transcript copy: 85; Record Group 330. The National Archives.
82. Han Xiao. Compilation of Camp 731 savage fascist acts. *Unforgettable History*. Harbin; 1985. Ly Cheng, trans.
83. Han X. Factual account of Japanese biological killing. *Historical Material on Jilin History*. Jilin Branch of the Committee on Culture and History. Changchun: 1987. Qing Ling Wang, trans.
84. Doc. No. 29510, General Headquarters, Supreme Commander for the Allied Powers, Military Intelligence Section, General Staff, Allied Translator and Interpreter Section, 3 April 1947: 3. The National Archives.
85. Japanese Ex-medic Testify: Chinese in Cage for Germ-warfare Tests. [CND. 12/1295]. Available at: <http://www.cnd.org:802...ror/nanjing/watch.html>. Accessed 3 February 2003.
86. Nazi doctors' estimates provided the author by Professor Robert Proctor, Pennsylvania State University, University Park, Pa.
87. Waitt AH. Poison gas in this war. *The New Republic*. April 1942;106:563–565.
88. Telegram from Chungking to Milid, No. 205, 14 June 1942. Record Group 218. CCS 385.5. Japan (6-14-42). The National Archives; Condensed Statement of Information Available Concerning Japanese Use of War Gas, Information Received Through Official Sources. N.d. (1946 or 1947), n.p. (Probably Tokyo). Record Group 331. No box no. The National Archives.
89. Coox AD. *Nomonhan: Japan Against Russia, 1939*. Stanford, Calif: Stanford University Press; 1985: 1020–1021, 1167, fn. 35, 37, 38.
90. Han X. The suicide squads of the 731 troop in the Nomonhan incident. *Harbin Gazette*: No. 2. 1989. Lu Cheng, trans.
91. Reader's Voice. *Tokyo Mainichi Shimbun*. July 1982.
92. Typhoid germs thrown downstream at Nomonhan incident. *Tokyo Asahi Shimbun*: 24 August 1989 [page numbers not available].
93. Statement of Captain Kojima. In: Gold. *Unit 731 Testimony* Tokyo: Yen Books; 1996: 70–71.
94. Kimura S. New Evidence For Japanese Germ Warfare Found in China. Available at: <http://eddt.com/files/...13/dn96-08-13-1b.html>. Accessed 13 August 1996.

95. Researcher on Imperial Army Gassing Chinese. Tokyo: Kyodo in English, 0826 GMT 8 June 1995; as cited in FBIS-EAS-95-110.
96. Interview with Han Xiao, 7 June 1989 in which he estimated that several thousand Soviet soldiers became ill and that the Japanese suffered at least 1340 epidemic-related casualties.
97. Li Ji Xin. The plague in Nongan County, 1940. In: *Historical Material on Jilin History*. Changchun; 1987.
98. Interview in Changchun with Associate Professor Tien Zi Hei, a distinguished authority on Changchun local history, of Northeast Normal University, 4 June 1989.
99. Zou Shi Kui. An investigation into the remains of Army Unit 100. In: *Changchun Cultural and Historical Materials*. Vol. 4. Changchun, 1986. Qing Ling Wang, trans.
100. Zhao Pu Qian. What I heard about the Bacteriological Army. *Historical Material on Jilin History*.
101. Levine ST. *Anvil of Victory: The Communist Revolution in Manchuria, 1945–1948*. New York: Columbia University Press; 1987.
102. Statement of Dr. Yuasa Ken. In: Cook HT, Cook TF. *Japan at War: An Oral History*. New York: The New Press; 1992: 146–149.
103. Kristof ND. A Japanese generation haunted by its past. *New York Times*. 22 January 1997:A6.
104. Statement of Nishino Rumiko in Gold. *Unit 731 Testimony*: Tokyo: Yen Books; 1996: 159–166.
105. Anonymous. In: Gold H. *Unit 731 Testimony*. Tokyo: Yen Books; 1996: 187.
106. Brackman AC. *The Other Nuremberg: The Untold Story of the Tokyo War Crimes Trials*. New York: William Morrow & Co; 1987.
107. *Days Japan* [a Japanese language magazine published in Tokyo]. June 1989.
108. Efron S. Japanese right praises film on WWII leader. *Los Angeles Times*. 12 May 1998:1A, 6A.
109. OKAYAMA enters sex-slave fight; Prefectural Assembly seeks to cut description from texts. *Japan Times*. 20 December 1996:3.
110. Koreans lose forced labor suit, government can't be held responsible, court rules. *Japan Times*. 23 November 1996:3.
111. Set masochistic history texts right: Group members claim no evidence to prove force was used on 'comfort women.' *Japan Times*. 3 December 1996:4.
112. "Comfort women" report hurts UN. *Yomiuri Shimbun*. 11 August 1998.
113. Statement of Fujioka Nobukatsu. *Japan Times*. 28 December 1996:4.
114. Harris S. *The Present Problem of Peace Education in Japan: 1998 Annual Report*. Hiroshima: Hiroshima Institute for Peace Education; May 1999.
115. Shibata S. The atomic victims as human guinea pigs. *Seisen Review*. 1996;(4):115–135.
116. Thomas P. War crimes list bars 16 Japanese from US. *Washington Post*. 4 December 1996:A1, A30.
117. Sullivan K. US move puzzles Japanese. *Washington Post*. 5 December 1996:A31, A33.
118. Case #330, Report by Neal R. Smith, 4 April 1947, Record Group 331, Box 1434, 20. The National Archives.

119. Case #330, Report by L.H. Bernard, 29 November 1946, Record Group 331, SCAP, Legal Section, Investigation Division, Investigative Report 1117. The National Archives.
120. There are many documents relating to Wakamatsu in a Legal Section file title "Motoji Yamaguchi, Inv. Div. No. 330, Record Group 331, Box 1434, 20, Case 330." The National Archives.
121. Stenographic transcript of interrogation of Lieutenant General Masaji Kitano in Tokyo by Colonel S.E. Whitesides and Colonel A.H. Schwichtenberg on 11 January 1946, Document 004, Dugway Proving Grounds Library.
122. Transcript of interrogation of Lieutenant General Masaji Kitano in Tokyo, Japan, by Lieutenant Colonel A.T. Thompson on 6 February 1946, Document 004, Dugway Proving Grounds Library.
123. Summary of Information, subject Ishii, Shiro, 10 January 1947, Document 41, US Army Intelligence and Security Command Archive, Fort Meade, Md.
124. Cochrane RC. *History of the Chemical Warfare Service in World War II (1 July 1940–15 August 1945), Biological Warfare Research in the United States*. Historical Section, Plans, Training and Intelligence Division, Office of Chief, Chemical Corps, November 1947. Unpublished "draft" typescript. Fort Detrick Archives, Frederick, Md.
125. Smart JK. History of chemical and biological warfare: An American Perspective. In: Sidell FR, Takafuji ET, Franz DR, eds. *Medical Aspects of Chemical and Biological Warfare*. In: *The Textbook of Military Medicine*. Washington, DC: Office of The Surgeon General, US Department of the Army and Borden Institute; 1997: 9–86.
126. Joy RJT. Historical aspects of medical defense against chemical warfare. In: Sidell FR, Takafuji ET, Franz DR, eds. *Medical Aspects of Chemical and Biological Warfare*. In: *The Textbook of Military Medicine*. Washington, DC: Office of The Surgeon General, US Department of the Army and Borden Institute; 1997: 87–109.
127. Norbert H. Fell to Chief, Chemical Corps, "Brief Summary of New Information about Japanese B.W. Activities", n.p. (Camp Detrick?), 20 June 1947, p. 1, Document 005, Dugway Library.
128. Edwin V. Hill to General Alden C. Waitt, "Summary Report on B.W. Investigations," 12 December 1947, Document 008, Dugway Library.
129. From: CIS to G-2 Historical, Subject: Ishii, Shiro, 24 July 1947, Document 28, US Army Intelligence and Security Command Archive, Fort Meade, Md.
130. Report by Neal R. Smith, Report of Investigation Division, Legal Section, GHQ, SCAP, 18 April 1947: 1. The Joint Chiefs' instructions were referred to in this report as SWNNCC 351/1, 5 March 1947. Record Group 331, Box 1434. 20, Case 330, The National Archives.
131. SWNCC was disbanded in 1949. Information on SWNCC and its operations was furnished in a 25 April 1991 telephone interview of Kathy NiCastro, Archivist in charge of State Department records at the National Archives.
132. R.M. Cheseldine, memorandum for the Secretary, SFE, 26 September 1947: 1, Record Group 165, SWNCC 351, The National Archives.
133. Chemical Corps Research and Development Command. *The Report of "A."* Fort Detrick, Md: Biological Warfare Laboratories; circa 1946.
134. Shibata S. *Japan's National Institute of Health (JNIH) As Heirs to the Tradition of Medical Scientists of the Biological Warfare Network*. Typescript copy dated 29 March 1997 provided the author by Professor Shibata.
135. Pollack A. Japan blood supplier, facing HIV penalty, to be acquired. *New York Times*. 25 February 1997:C7.
136. Efron, S. Japan's high court rules against rewriting history. *Los Angeles Times*. 30 August 1997:A1, A16.



**Chapter 16: ATTACHMENT**

**PHOTOGRAPHS FROM PING FAN MUSEUM**

Photographs of exhibit materials (including captions) from displays at the Ping Fan Museum, Harbin, Manchuria, China, from the collection of Sheldon Harris.

**Field Tests:** (a) "The sterilization vehicles of the puppet municipal government of Harbin City were ordered to come to the epidemic area." (b) "The members of the Japanese germ troops were investigating disease source in an epidemic area." (c) "The members of the Japanese germ troops were anatomizing dead bodies in an epidemic area." (d) "The members of the Japanese germ troops were gathering germ strains from the epidemic area to be examined under the microscope."

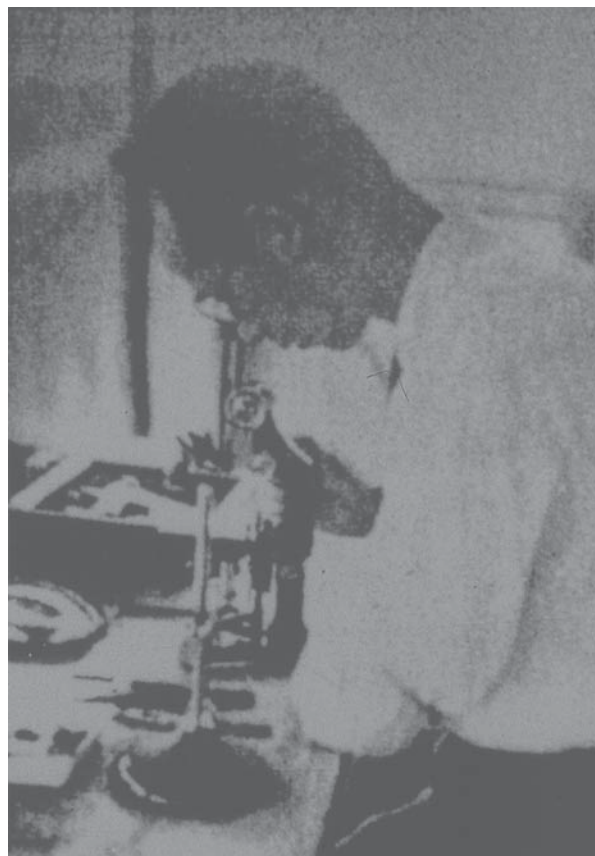
a



c

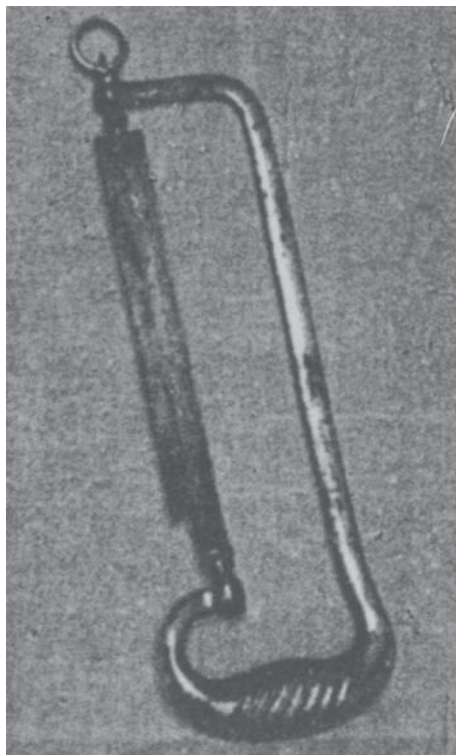


b



d

e

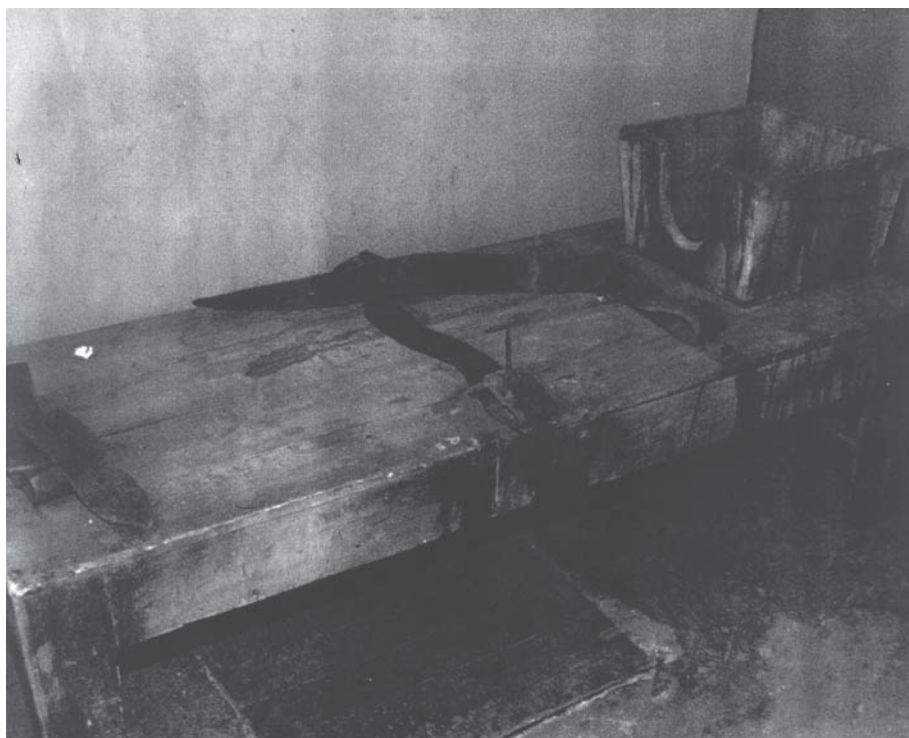


f

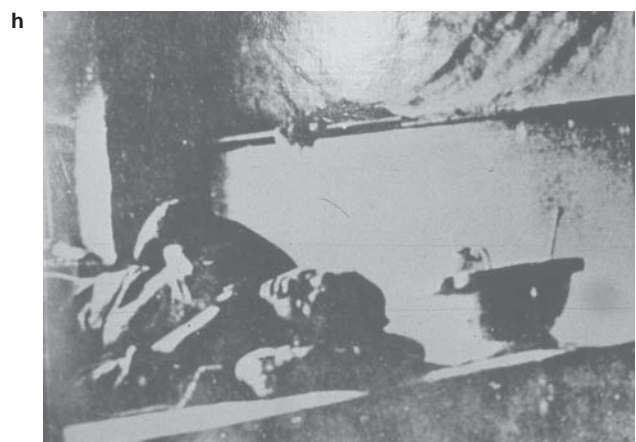


**Medical Implements:** Implements used by Japanese pathologists to dissect BW victims (e and f); vivisection/dissection table (g). Photographs of exhibit materials from displays at the Ping Fan Museum, Harbin, Manchuria, China, from the collection of Sheldon Harris.

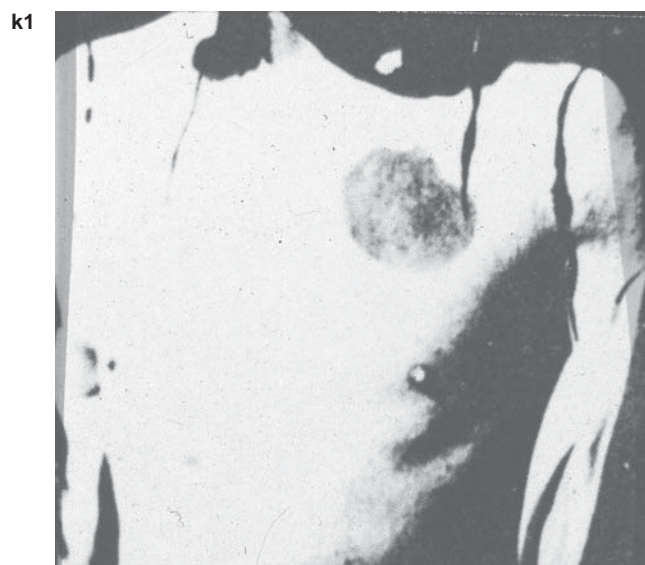
g







**Research Victims:** The numbers of victims of Japanese biomedical experimentation in China will probably never be known. These photographs show some of the human subjects of the experimentation program. Photographs of exhibit materials (including captions) from displays at the Ping Fan Museum, Harbin, Manchuria, China from the collection of Sheldon Harris. (h) "The troops 731 scattered bacilli pestis in Liaobei, Tonghso, etc. After liberation, infectious plague disease occurred in these areas. The picture shows a patient suffered [sic] from plague." (i) "Plague victim near Ping Fan, c. 1946." (j) "Japanese victim of a misdirected BW field test." (k1) and (k2) "Some results of CW and BW human experiments."





**Artwork from Ping Fan:** These four paintings are artists' representations of the Japanese biomedical experimentation program involving Chinese prisoners. Photographs of exhibit materials (including captions) from displays at the Ping Fan Museum, Harbin, Manchuria, China, from the collection of Sheldon Harris. (l) "The victims staked as part of the bacterium experiment." (m) "The persons after the bacterium experiments were dissected alive by the Japanese army meds." (n) "On August 10, 1945 ISHII SHIRO issued the order for executing all patients in custody." (o) "The troops 731 destroy the documents and materials w[h]ich would show their crimes."



# Chapter 17

## THE COLD WAR AND BEYOND: COVERT AND DECEPTIVE AMERICAN MEDICAL EXPERIMENTATION

SUSAN E. LEDERER, PhD<sup>\*</sup>

---

### INTRODUCTION

### THE DISCLOSURE OF BIOMEDICAL RESEARCH PROGRAMS

### HUMAN EXPERIMENTATION IN THE UNITED STATES BEFORE 1940

- Research Conducted by the Military
- Government-Sponsored Research

### RESEARCH TO SUPPORT THE AMERICAN WAR EFFORT

- Research on Chemical Warfare Agents
- Research on the Prevention and Cure of Infectious Diseases
- The Increasing Concern About Research Risk and Liability

### THE POSTWAR WORLD AND “CRIMES AGAINST HUMANITY”

- The Judgment at Nuremberg
- The Impact of the Nuremberg Tribunal on the American Medical Research Community
- Expansion of Rules to Protect Research Subjects
- Public Health Service Exemption From Research Controls: The Tuskegee Study

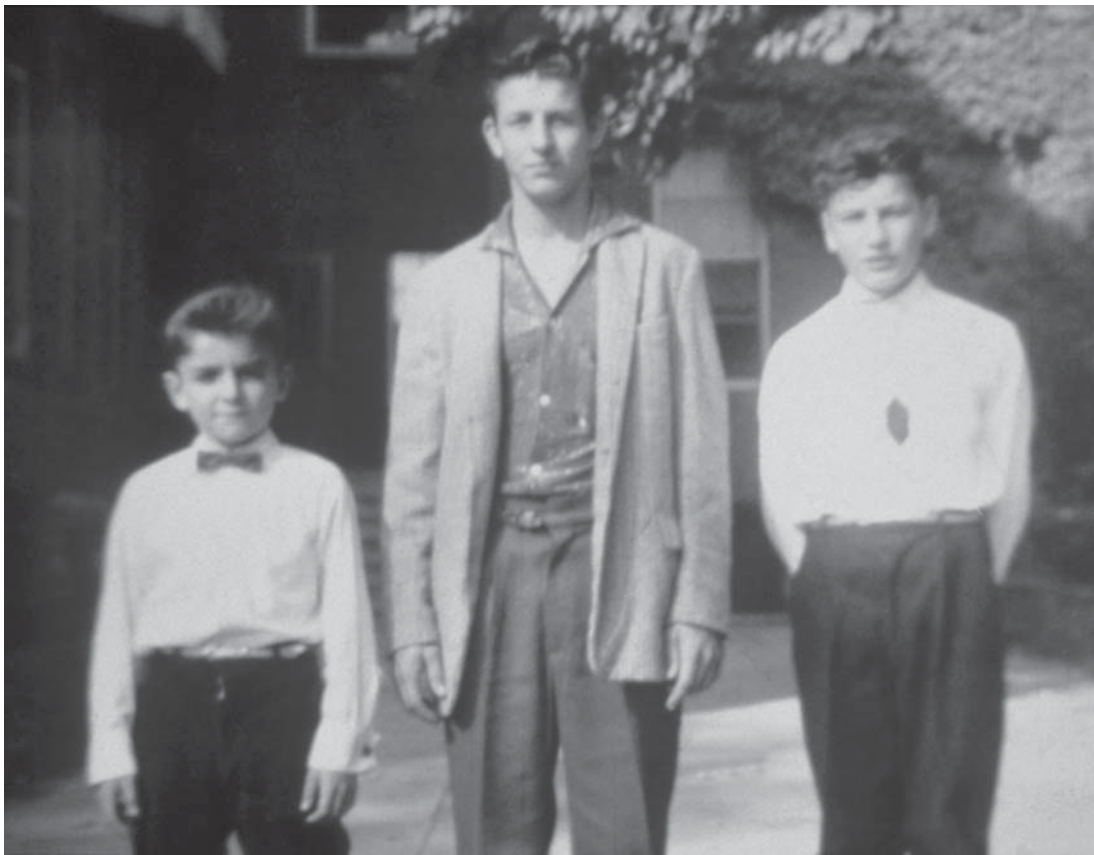
### HUMAN EXPERIMENTATION DURING THE COLD WAR ERA

- The Nuremberg Code and the United States Government
- The Human Radiation Experiments
- The Central Intelligence Agency and “Mind-Altering” Substances
- The US Army and Biological Warfare Tests in America

### SECRECY AND SCIENCE

### CONCLUSION

<sup>\*</sup>Formerly, Member (1994 to 1995), President’s Advisory Committee on Human Radiation Experiments; currently, Assistant Professor, Section of the History of Medicine, Yale University School of Medicine, Yale University, 333 Cedar Street, New Haven, Connecticut 06520-8015



More than 70 boys, including these three, at the Fernald State School in Waltham, Massachusetts, participated in tests with cereals containing radioisotopes of iron and calcium. These studies, sponsored by Quaker Oats and the Atomic Energy Commission, were conducted by investigators at the Massachusetts Institute of Technology during the Cold War.

Photograph reproduced with permission from Brooks Kraft/Sygma Corbis.

## INTRODUCTION

The three previous chapters in this volume have examined medical experimentation during the 1930s and 1940s in Germany and Japan. It is likely that most readers already knew something of the German biomedical experiments (although perhaps less so of the physicians' leadership in these experiments). It is also possible that many readers knew some of the details of the Japanese biomedical programs (although perhaps less so of the US utilization of the data from these programs). Some readers may wonder why a chapter on covert and deceptive American medical experimentation would immediately follow the graphic descriptions of German and Japanese medical atrocities. Is it my intent to suggest that American transgressions were of similar magnitude or horror? Would such a suggestion not only unfairly characterize the American efforts, but also diminish the horror of the German and Japanese atrocities? It is not my intent to do either, but rather to put these events in perspective.

If, as a country, there is a desire to portray the German and Japanese biomedical experimenters as "evil," and American medical experimenters as "patriotic," or, given the context of the times, their motives as "understandable," then it is important to explore the American medical research community in the 20th century, particularly as it evolved after the end of World War II. If there is indeed a

continuum, or a "slippery slope," of medical excesses toward medical atrocities, then it is imperative that the past activities of the American medical research community be examined.

How is it that the average American could know so much about the German programs and, until recently, so little about the American programs? How is it that the German research programs have been viewed by many as the very embodiment of "evil medicine," while disclosures of unethical American research do not seem to engender the same visceral reaction among the American public as a whole? Is it because American programs were somehow more ethical or is it because in America there was a different standard or a different perception of America's values and its role in the world? These are troubling issues to consider. The first step in such a consideration is to understand the programs themselves.

I will explore covert and deceptive medical experimentation programs as they occurred in the United States before, during, and after World War II. The decisions to conduct these programs were made in the context of the world as it was then. The task now is what can be learned from those decisions to conduct deceptive research, and the human consequences of those actions, to prevent the recurrence of such programs.

## THE DISCLOSURE OF BIOMEDICAL RESEARCH PROGRAMS

The experimentation programs in Germany were divulged in stark detail during the Nuremberg Trials that followed Germany's surrender. Among American physicians, the barbarities of the Nazi medical program were also viewed as an aberration. Simply put, this was something that had happened in another place, another culture, a different form of government. It had happened there, but it couldn't happen anywhere other than there, at that time, and in those circumstances. That was now in the past, although it certainly had to be remembered. But as long as it was remembered, it couldn't happen again. And it certainly couldn't happen in any country that had moral and decent citizens and a democratic government, which was how most Americans saw themselves and their country in those years immediately after the end of the war when America had "saved the world from fascism."

Most of the American public at war's end had little, if any, knowledge of the Japanese biomedical research programs that were conducted during this

same time. There was no American or Allied trial of Japanese doctors comparable to the Nuremberg Tribunal, other than a brief trial in the former Soviet Union. There were the tribunals that convicted members of the Japanese military for their involvement in the war, but none targeting the medical establishment. And, just as importantly, there was a tremendous amount of work to be done to rebuild devastated countries. Transportation systems, manufacturing bases, housing, food, and medical needs all had to be addressed. It was easy to assume that the only physicians who had conducted these heinous experiments had been in Germany, and most had been held accountable by the tribunals.

There were other reasons, as well, that the public did not know about the biomedical research programs conducted by the Japanese. Foremost, as detailed in Chapter 16, it was believed to be in America's best interests to utilize the results of the Japanese programs in America's ongoing preparation for confrontation with the former Soviet Union.

Although it had been an ally during World War II, there were no misconceptions about the threat it posed once the war had ended. And although Allied forces had captured Japanese biomedical experimenters at the end of World War II, Soviet forces had taken control of their remaining research facilities and reports. The American government was actively seeking to prevent Soviet knowledge of the Japanese germ warfare tests. A tribunal would have seriously undermined this attempt at secrecy.

The US government had a need to maintain weapons' superiority, and if not superiority, then at least "parity" with the Soviets in any future conflict. These weapons systems included nuclear, biological, and chemical weapons. The US government also saw little need to let the Soviets know what information the Americans had garnered from the Japanese, or to let the American public know that its government was willing to negotiate with the Japanese doctors to gain their information, rather than arresting, trying, and punishing them for their deeds. It was easier and more prudent to simply keep quiet about the Japanese biomedical research.

Thus at war's end, Americans observed the Nuremberg Trials, saw that there were verdicts and punishments meted out, and continued with the task of reestablishing lives that had been disrupted for 4 years during the war. Few if any Americans had any real sense of what their own government had done during those war years, or in the years that followed as the Cold War drug on.

In 1972, as the war in Vietnam wound down and America struggled with the divisiveness that the war had fostered, the public learned of the Tuskegee Syphilis Study. After public disclosure and the report of the Ad Hoc Tuskegee Syphilis Study Panel, the Secretary of the Department of Health, Education, and Welfare terminated the study in 1973. Many Americans were dismayed at the revelation of the study, which had documented the course of untreated syphilis in black men. There was a prevailing sense of outrage that a program that had begun in the 1930s, and clearly seemed racist by standards in the 1970s, could have continued for so long without being halted. There was, however, another prevailing sense: that this was a relatively isolated event, that it could be explained away as something sinister and racially motivated from a previous generation, and that although shameful, it was not indicative of a broader problem within the American medical research community.

It was not until 1994 that most Americans had any real understanding of the magnitude of covert and deceptive medical research that had been on-

going in this country throughout most of the Cold War. In 1994, President William J. Clinton announced that based on information provided to him by Hazel O'Leary, his Secretary of Energy, he was appointing an Advisory Committee on Human Radiation Experiments. The Committee was tasked to explore and document research activities that had begun in the late months of World War II and continued for the next 30 years. I was an appointed member of that committee.

The committee held 16 public meetings and 4 field hearings in 18 months.<sup>1</sup> During that time, the committee researched archival records; the radiation experiments (an estimated 4,000 different studies in all) were examined in detail. We presented our final report, 900 pages in length, summarizing the scope and mass of the research efforts during the Cold War to the president in 1995. After receiving the report, President Clinton apologized to the men, women, and children who had participated in human radiation experiments sponsored by the United States government in the years between 1944 and 1974. Acting on the recommendations of the committee, Clinton acknowledged the Cold War legacy of mistrust and suspicion fostered by government-sponsored radiation experiments, and announced the establishment of the National Bioethics Advisory Commission to insure the future protection of human subjects in biomedical research.<sup>2</sup> In 1997 President Clinton formally apologized on behalf of the American people to another group of Americans: the participants in the Tuskegee Syphilis Study and their families.

Both the Tuskegee Syphilis Study and much of the radiation research involving human subjects were not covert projects in the strict sense. Results from the Public Health Service (PHS) syphilis study, for example, were published in the medical press (some 13 articles appeared in all from 1936 to 1973). In the popular press in the 1950s and 1960s, reporters described human radiation experiments as "burn" studies (conducted on both African-American college students and white medical students<sup>3</sup>) and blood studies (involving radioisotopic iron performed on inmates at a state prison<sup>4</sup>). The apparent openness of these and other studies, however, has been contested by many of the participants or their families who insist that they had little understanding of their role in this research, and little knowledge of the risks involved in their participation.

In light of the often imprecise dividing line between covert and openly conducted studies, this chapter includes both those performed clandestinely under federal auspices, as well as studies like



many of the human radiation experiments that were carried out without a security “blanket.” There are two compelling reasons for this inclusion. First, the fact that studies like the syphilis study were not secret should not obscure the deceptions researchers engaged in to secure the cooperation of their subjects when they were alive and the inducements to procure familial cooperation once the subjects were dead. Second, many of the reforms and protections subsequently undertaken to insure the ethical conduct of research involving human subjects have occurred as a result of disclosures about experiments such as the human radiation experiments that were not fully understood by participants in the projects or the general public.

This chapter examines the American experience with human experiments performed in the decades between the 1940s and the 1990s. It begins with the research climate as it prevailed on the eve of Ameri-

can entry into World War II and moves on to a review of the rules for research during wartime. In addition, the chapter considers the creation of the landmark rules for ethical human experimentation in the immediate postwar period, the Nuremberg Code, produced amid the prosecution of 23 medical defendants at the Doctors’ Trial in Nuremberg in 1947. Finally, the chapter considers the conduct of human experimentation in the shadow of Nuremberg, including human radiation experiments—covert and noncovert—sponsored by the United States government, LSD (lysergic acid diethylamide) studies sponsored by Central Intelligence Agency, and biological warfare tests performed on American soil. Only by examining this subject can the medical community, including the military medical community, prevail in preventing the recurrence of such covert and deceptive medical experimentation.

## HUMAN EXPERIMENTATION IN THE UNITED STATES BEFORE 1940

On the eve of American entry into World War II, human experimentation remained a small-scale enterprise, involving only limited numbers of medical researchers and human subjects. Much of the research effort in the first four decades of the 20th century was directed at the infectious diseases that continued to threaten American lives and interests, and most of the experiments devised by physicians and researchers were conducted on small numbers of human subjects. Much of the research conducted in this period involved self-experimentation or the use of colleagues and students as research subjects. In other cases, researchers turned to their own family members. In the search for an effective polio vaccine, for example, pathologist John A. Kolmer tested his polio vaccine on himself, his two children, and 23 other children “all immunized at the request or with the written consent of their parents,”<sup>5(pp107–108)</sup> before proceeding to a larger trial involving some 300 children.

### Research Conducted by the Military

Among the most ambitious and successful human experiments conducted in the early 20th century were those sponsored by the US Army. In 1900, Major Walter Reed and his colleagues in the Yellow Fever Board in Havana used American soldiers and Spanish volunteers to document the mode of transmission of yellow fever, which remained a significant detriment to American interests in the Caribbean. Reed developed a novel approach to exposing vol-

unteers to the risk of yellow fever; he drew up a written contract available in Spanish and English that identified the risks and benefits in the yellow fever studies (see Figure 17-1). Although this novel departure would not meet the current federal standards of informed consent for participation in research, Reed’s contract illustrates that rules for research, especially research undertaken without therapeutic benefit to the individual, existed among members of the research community at the turn of the century.

### Government-Sponsored Research

Not all research in American-occupied territories turned out as satisfactorily as Reed’s expedition. In the American-occupied Philippines, American researcher Richard P. Strong exploited the availability of inmates in a Manila prison to test a newly available cholera vaccine. In 1906 Strong inoculated 24 men with an experimental cholera vaccine; all the men fell ill and 13 died. The vaccine was later shown to be contaminated with live plague organisms. Apparently the first American to use prisoners for medical research, Strong was subjected to a lengthy investigation and eventually exonerated, although members of the investigating committee believed he had overstepped the bounds of his authority by subjecting the prisoners to an experimental vaccine. In subsequent studies, including a 1912 study of beriberi also involving inmates from Manila’s Bilibid Prison, Strong proceeded with

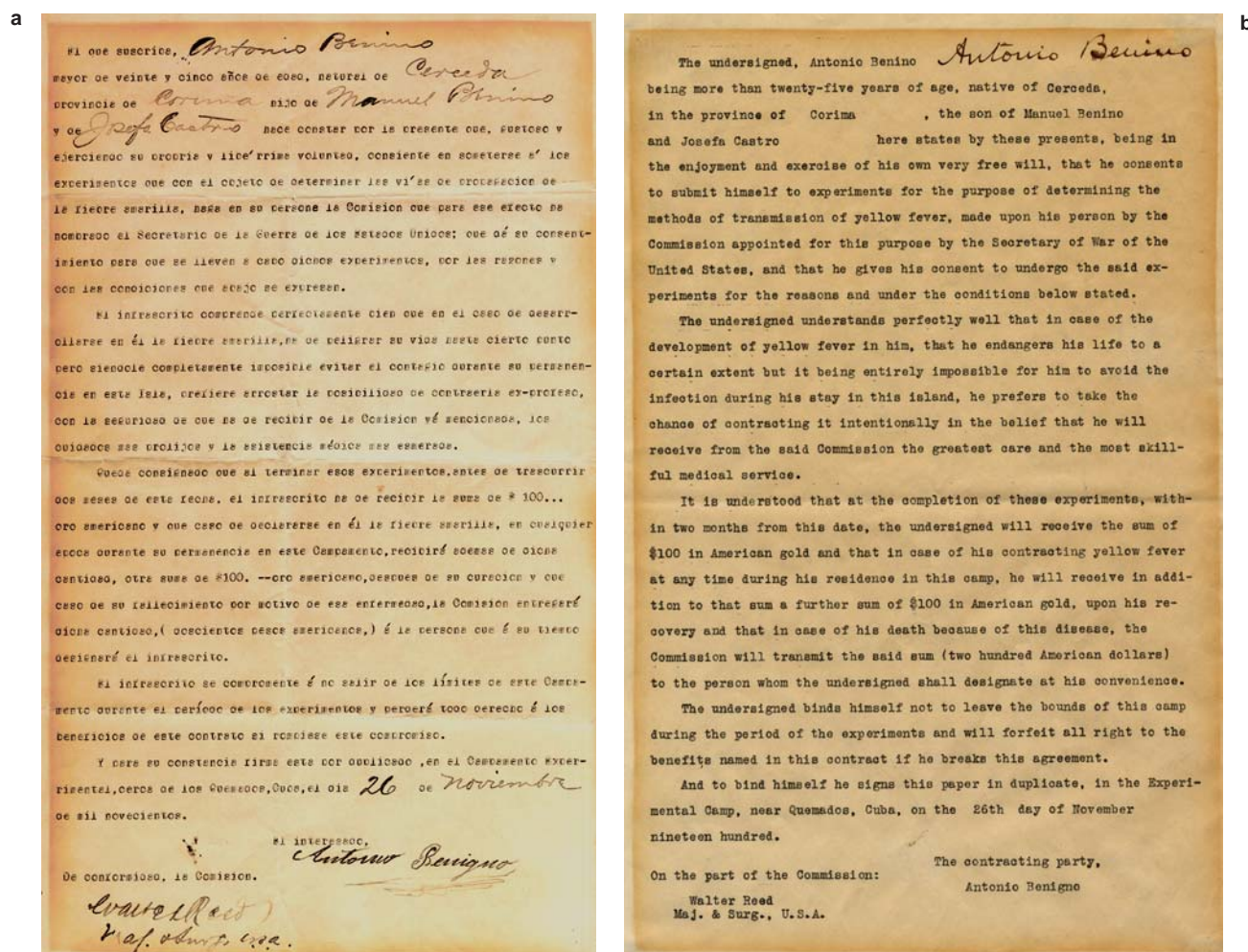


Fig. 17-1. Consent form, completed in Spanish, dated, and signed by both the subject and the experimenter (a). Consent form, translated into English, dated, but not signed (b). Courtesy of Historical Collections and Services, The Claude Moore Health Sciences Library, University of Virginia, Charlottesville.

greater caution, obtaining from each of the prisoners a written statement affirming the voluntary nature of his participation and his willingness to complete the studies.<sup>6</sup>

Government-sponsored research also occurred within the continental United States. In 1932, the Public Health Service (PHS) began the longest running nontherapeutic research study in American history, the Tuskegee Syphilis Study. Initially intended to shed light on racial differences in the natural history of syphilis, the study entailed periodic clinical observations of more than 400 African-American men diagnosed with secondary syphilis who were not receiving treatment for their disease. In order to insure the “success” of the no-treatment study, scientists in the Venereal Disease Division at the Public Health Service actively misled their male

subjects about the nature of their participation in the project. The men, for example, were informed they had “bad blood” rather than syphilis, and they were asked to undergo lumbar puncture, a “special treatment” for their condition. Lumbar puncture is not a treatment but a purely diagnostic procedure involving removal of spinal fluid for testing. When penicillin became available in the 1940s, government scientists took steps to ensure that the men in the study did not receive this new and effective drug. The ethical violations of the Tuskegee study are addressed in detail in the chapter subsection titled “PHS Exemption From Research Controls: The Tuskegee Study.” It is important to note that the legacy of the Tuskegee study still resonates strongly within the African-American community. The study has become a powerful symbol of the exploitation

of unsuspecting and vulnerable African-Americans at the hands of the white medical establishment.<sup>7,8</sup>

During the 1930s, prisoners in both state and federal prisons in the United States also participated in research on infectious disease. In 1933, researchers at the National Jewish Hospital in Denver tested a newly developed vaccine for tuberculosis on inmates of the Colorado State Prison. In order to gain access to this population, the researchers negotiated with the governor's office and agreed to recruit their subjects using a written consent form drafted by the state attorney general. The document indicated each prisoner understood the potential risks of his participation, and agreed to do so voluntarily and without coercion. From the researcher's point of view, convicted criminals offered considerable advantages as research subjects. They could be readily monitored in conditions controlled by researchers.

In the 1930s, some researchers viewed prisoners in federal penitentiaries as similarly attractive subjects for infectious disease research. In 1933, when St. Louis experienced an epidemic of the encephalitis that would come to be known as St. Louis encephalitis, researchers from the Public Health Service were dispatched to the city to discover how the disease was transmitted. After submitting their own bodies to mosquitoes fed on the blood of those infected with the disease, investigators sought additional subjects. Surgeon General Hugh Cumming approached Sanford Bates, Director of the Federal Bureau of Prisons, for

permission to obtain volunteers at federal prisoners. Bates, however, would not authorize such studies on the grounds that prisoners were not in a position to consent freely and without duress to such research. Ironically, research on federal prisoners was sanctioned at two large facilities built for federal prisoners suffering from drug addiction. In cooperation with the Federal Bureau of Prisons, the Public Health Service built hospitals in Lexington, Kentucky and Fort Worth, Texas where prisoners participated in research for information about the nature of drug addiction and its treatment. Unlike the encephalitis studies, the studies on narcotic addiction offered the possibility of some therapeutic benefit for the prisoners.

In summary, before 1940, most human experiments involved relatively small numbers of research subjects and participants. At no time were investigators completely free to do whatever they pleased with their research subjects. In research involving risk without therapeutic benefit, researchers were expected to have the knowledgeable permission of their research subjects. To be sure, not all investigators adopted the practice instituted by Walter Reed of using written consent documents to ensure that participants recognized the risks and benefits of their role as subjects, but clearly many investigators (though not all, as evidenced by the Tuskegee Syphilis Study) recognized a responsibility for the welfare of their subjects and hesitated to place subjects at risk in experiments.

## RESEARCH TO SUPPORT THE AMERICAN WAR EFFORT

Even before the bombing of Pearl Harbor and the subsequent declaration of war, American authorities began to prepare for war in Europe and the Pacific. Part of the humanitarian effort to aid the Allied forces and civilians was a massive collection of plasma for British soldiers and civilians, known as the "Blood for Britain Program."<sup>9</sup> On other fronts, the American entry into the war signaled an unprecedented coordination of scientific research under federal auspices. In 1941 President Franklin D. Roosevelt established the Office for Scientific Research and Development (OSRD). Led by Vannevar Bush, former dean of engineering at the Massachusetts Institute of Technology, the OSRD's mission was the coordination, funding, and oversight of scientific research for the American war effort. Within the OSRD, the Committee on Medical Research (CMR) was dedicated to wartime medical investigations. Chaired by University of Pennsylvania pharmacologist Alfred Newton Richards, the CMR distributed over \$24 million to 137 institutions

in the United States, the District of Columbia, and the Panama Canal Zone. Among the funding priorities of the CMR was research on chemical warfare agents and the prevention or cure of infectious diseases, especially those likely to be encountered by the armed forces.

### Research on Chemical Warfare Agents

Amid vivid memories of mustard gas deployment by the Germans during World War I, the American government readied itself for chemical warfare, conducting extensive research into gas warfare agents. The tests were aimed at prevention, amelioration, and effect of the agents. The tests involved putting agents on human subjects, either with or without test ointments, as well as tests in which human subjects wore suits impregnated with chemicals designed to retard vapor penetration. By the time the war had ended in 1945, more than 60,000 American service personnel had been ex-



posed to mustard gas (sulfur and nitrogen mustard) and Lewisite (an arsenic-containing agent) as part of a large-scale research effort. More than 4,000 servicemen had participated in trials using high concentrations of mustard gas or Lewisite, or in exercises conducted in contaminated areas. The men, whose exposures to these toxic gases ranged from mild to severe, were instructed not to disclose their participation in these trials. For more than 40 years, they continued to keep the nature of their exposure secret. In 1991 an expert committee of the Institute of Medicine (IOM), National Academy of Science, reported there was evidence of a causal relationship between exposure to these chemical agents (mustard gas and Lewisite) and the development of respiratory cancers (including lung, laryngeal, and nasopharyngeal), skin cancer, leukemia, chronic respiratory disease (including asthma and emphysema), and a variety of eye diseases.<sup>10</sup>

As the IOM committee's extensive report amply revealed, the men recruited into these studies did so with only limited information about the possible physical and mental effects of their exposure.

Although the human subjects were called "volunteers," it was clear from the official reports that recruitment of the World War II human subjects, as well as many of those in the later experiments, was accomplished through lies and half-truths.<sup>10(pvii)</sup>

At the Naval Research Laboratory (NRL), for example, soldiers were induced to take part in the gas chamber tests by offers of extra leave and the promise of a "change in scenery." Recruiters were explicitly instructed not to give too much information at the beginning of the experiments, so as not to deter the subjects from participation. Records from the gas chamber work at the NRL indicate that some men experienced severe injuries as a result of their exposure. Perhaps it is not surprising, therefore, that morale became a problem for experimenters. Official reports from the facility provided instructions for managing uncooperative individuals, including administering a "short, explanatory talk and if necessary, a slight verbal 'dressing down.'"<sup>10(p67)</sup> Despite the knowledge that exposure to these agents produced long-term, debilitating physical effects, the Department of Defense conducted no follow-up, either short-term or long-term, of the effects, and instead swore the men to secrecy. The extensive nature of the World War II research program into chemical warfare became public knowledge only when several veterans approached the Veterans Administration seeking compensation for health injuries resulting from their exposure to the gases.

## **Research on the Prevention and Cure of Infectious Diseases**

In addition to chemical warfare agent research, the CMR funded research projects investigating such infectious diseases as malaria, influenza, dysentery, and sexually transmitted diseases. Many of the human subjects for research into new vaccines for these diseases were not military personnel but civilians, especially children housed in custodial institutions. Cincinnati physicians Merlin Cooper and B.K. Rachford, for example, used children in the Ohio Soldiers and Sailors Home in trials of an immunizing agent effective against dysentery. Utilizing different suspensions applied in different ways (intravenous, intramuscular, and subcutaneous), the researchers caused severe reactions in the children tested, effectively eliminating the vaccine for use among soldiers. Dysentery projects funded by the CMR were also performed at the Dixon Institution for the Retarded, in Illinois, and the New Jersey State Colony for the Feeble-Minded. Indeed, having access to a custodial population where such diseases could be studied enhanced the status of a grant application to the Committee. In some of the trials funded by the CMR, vaccine tests were accompanied by deliberate challenge with the infectious agent. When Werner Henle conducted trials of a vaccine against influenza A he administered the vaccine to children housed in a state facility for the retarded and a correctional institution for youthful offenders. Some of the subjects developed painful nodules at the site of injection.<sup>11</sup> Three to six months after the vaccine was administered, residents were fitted with a aviation oxygen mask and exposed to a preparation of the virus for 4 minutes. Some of the subjects developed influenza.<sup>11</sup>

## **The Increasing Concern About Research Risk and Liability**

In 1942 the National Research Council's Subcommittee on Venereal Disease approached A.N. Richards soliciting the CMR's stance on human experimentation. Such experimentation, Richards informed syphilologist Joseph Earle Moore, was not only desirable, but necessary in light of wartime demands. But Richards also noted that only volunteers should be used as subjects when the experiment posed any risks, and

only after the risks have been fully explained and after signed statements have been obtained which shall prove that the volunteer offered his services with full knowledge and that claims for damages will be waived.<sup>12(p73)</sup>



Richards also noted the necessity of maintaining a complete record of the “terms in which the risks involved were described.”<sup>12(p73)</sup>

Richard’s explication of the CMR’s attitude toward human experimentation makes clear the continuing commitment of American researchers to informing volunteers about risks resulting from participation in nontherapeutic research. But it also illustrates a new concern—the issue of liability to a volunteer in case of an adverse outcome—that many researchers began to experience in this period of increasing medical research involving human subjects. Richards had already confronted the problem in the context of wartime experiments involving the search for a blood substitute.

Despite the massive blood collection efforts, the search for an effective blood substitute continued apace during World War II. At the behest of the National Research Council, Harvard protein chemist Edwin Cohn and his team developed a blood substitute, based on bovine albumin, that had considerable promise. After some initial testing of the blood substitute on Harvard medical students and hospital patients in Boston and Minneapolis, the researchers employed Massachusetts prisoners as research subjects. At Cohn’s behest, lawyers for the OSRD met with agents from Lloyd’s of London concerning insurance coverage to indemnify Harvard University against possible financial losses resulting from the research effort. When Lloyd’s agreed to write such a policy for a premium of \$2,000, Harvard officials concluded the cost for the insurance was too high, and conducted the research without insurance coverage. As historian Jon Harkness has shown, the decision haunted university researchers and administrators when one of the prisoner-subjects died on 30 September 1942 as a result of his participation. In a strange turn of events, prisoner Arthur St. Germaine received a posthumous pardon in light of his participation as a research subject, and his burial expenses were charged to Edwin Cohn’s CMR grant.

The unfortunate death of a research subject did not stop human experimentation under CMR auspices, but it inspired some caution on the part of administrators like Richards and Vannevar Bush. When two investigators proposed to infect prisoners with gonorrhea to study the results of chemical prophylaxis of a disease that cost the armed services thousands of man-hours, the CMR conducted an intensive discussion about the political and ethical ramifications of such experimentation with human subjects. The gonorrhea studies would not be the only ones in which the political consequences

of such experimentation received the same consideration as the ethical. In the case of wartime and postwar human radiation experiments, for example, the issue of public relations, rather than national security or the ethics of human experimentation, influenced the decision to keep some experiments hidden from public scrutiny. After protracted discussion about the legality, expediency, and ethical dimensions of the study, the gonorrhea experiments, including the experimental infection of male volunteer inmates, began in 1943. For their willingness to undergo intra-urethral inoculations of gonococci, the prisoners received the sum of \$100, a certificate of merit, and a letter of commendation was forwarded to their parole board.

In summary, hundreds, if not thousands, of Americans—soldiers, prisoners, conscientious objectors, orphans, and the institutionalized mentally ill and mentally handicapped—participated in medical research during World War II. But such research did not take place in an ethical vacuum nor did it occur without consideration of the rights of research subjects and the responsibilities of individual researchers. Some of the research subjects did experience adverse outcomes without adequate understanding of the risks they incurred as a result of the investigations (this was especially true of the work performed using children and mentally incapacitated adults), but this failure should not obscure the fact that the American research community recognized ethical limits in the use of human subjects. Nonetheless, the line between acceptable and unacceptable experiments remained ambiguous. As should be apparent from this discussion, during this period there was inadequate professional guidance to influence these behaviors. What, then, had been the role of the organized medical profession in these research studies?

In 1916 leaders of the American Medical Association (AMA) had briefly considered amending the organization’s code of ethics to include a provision on human experimentation calling for the knowledgeable permission of the subject. The AMA leadership decided not to adopt such a stance believing it both unnecessary in light of the good moral character of American medical researchers and undesirable insofar as such a requirement would impede the progress of medical research.<sup>5</sup> Despite the decision to forego codifying a position on human experimentation, there existed through World War II an informal, if unwritten, consensus that required consent from healthy subjects when their lives or well-being were potentially threatened by participation in research and responsibility for the welfare of patients who took part in therapeutic studies.

## THE POSTWAR WORLD AND “CRIMES AGAINST HUMANITY”

In December 1946, as part of the preparation for the prosecution of 23 Nazi medical defendants at Nuremberg and acting on the advice of its Judicial Council, the American Medical Association (AMA) House of Delegates adopted a formal position on human experimentation. Three conditions had to be satisfied to conform to the ethics of the AMA: (1) the voluntary consent of the individual participating in an experiment had to be secured; (2) previously conducted animal experimentation to ascertain the risks for human subjects had to be reviewed; and (3) the requirement that the research be conducted under proper medical supervision had to be met. The AMA's decision to take this step reflected the behind-the-scenes work of University of Illinois pharmacologist Andrew C. Ivy, who served as one of the principal American advisors to the team of lawyers prosecuting the Nazi physicians. In his capacity as medical adviser to the American prosecutors, Ivy himself underwent tense cross-examination by the German attorneys defending the Nazi doctors, and was called on to explain the reliance of American investigators on prisoners and conscientious objectors as research subjects.<sup>13</sup> One of the prosecution witnesses, Werner Leibrand, was also questioned on this issue of voluntary participation, as detailed in Exhibit 17-1.

### The Judgment at Nuremberg

Part of the final judgment at the Nuremberg Doctors Trial was a set of 10 principles that have come to be known as the Nuremberg Code<sup>14</sup> (Exhibit 17-2). The Nuremberg doctors' trial was essentially an American activity; the judges were all American jurists who relied on their American experts—Ivy and Alexander—to come up with the standard by which to judge the Nazi crimes. The 10 principles in the code set the parameters for ethical human experimentation. The first principle (and the most frequently cited) states that the voluntary consent of the human subject is absolutely essential. Moreover, the human subject in question must be in a position to exercise autonomous decision making, possess the legal capacity to consent to experimentation, and should be presented sufficient information and knowledge to make an informed choice. In addition to the insistence on the knowledgeable participation of an autonomous decision maker, the other principles required investigators to conduct animal experimentation to establish in advance the

risks and utility of experiments on humans, to proceed only when the risk of the procedure is balanced by “the humanitarian importance” of the problem to be solved by experiment, and to be prepared to terminate the experiment at any stage if the experiment seems likely to result in death or injury to the research subject.

### The Impact of the Nuremberg Tribunal on the American Medical Research Community

Bioethicists George Annas and Michael Grodin have called the trials of the Nazi physicians “the most important historical forum [ever] for questioning the permissible limits of human experimentation.”<sup>15(p3)</sup> The Nuremberg Code has become an important milestone in the history of research ethics, but what did it mean to American investigators far removed from the Nazi death camps and the Nuremberg courtroom?

The Nuremberg Medical Trial, like the trials of other Nazi officials, was reported in the American popular press. Moreover, magazines and newspapers published “human interest” stories about the victims of the Nazi experimenters, including the “Ravensbrueck lapins,” the 74 young Polish women used by Nazi medical researchers in experiments on bone and muscle transplantation and wound infection.<sup>16</sup>

Such coverage, however, was hardly exhaustive. When the Advisory Committee on Human Radiation Experiments interviewed a number of medical investigators in 1995 about the import of the Nuremberg Code in their working lives in the late 1940s, few had vivid recollections of the trial and its implications for their own work. One exception was Dr. Herbert Abrams, a radiologist who was completing his residency at Montefiore Hospital in the Bronx during the trial. Dr. Abrams, recalling the extensive reportage of the trial, emphasized that the Doctors' Trial was something “we were aware of and that affected the thinking of everyone who was involved in clinical investigation.”<sup>17</sup>

It is perhaps not surprising that the atmosphere of Montefiore Hospital would be influenced by the trial. As a traditionally Jewish hospital, it had become home to a number of refugee Jewish physicians who fled Germany in the early years of the Nazi regime. For most American investigators, however, the trial seemingly exerted little impact; it involved doctors and human subjects in a differ-

## EXHIBIT 17-1

### THE ISSUE OF "VOLUNTARY PRISONER PARTICIPATION" RAISED BY THE DEFENSE AT THE NUREMBERG TRIBUNAL

One of the issues raised during the testimony of Andrew C. Ivy was American reliance on prisoners as subjects of medical experiments. The issue of prisoner experimentation arose during the questioning of Werner Leibbrand, a German psychiatrist and medical historian. American prosecutors hoped that Leibbrand, who had been persecuted by the Nazis, would establish the deleterious effects of Nazi dictatorship on the German medical profession. In his cross-examination of the German physician, Robert Servatius, the German attorney defending Karl Brandt (Hitler's personal physician) questioned Leibbrand at length about the voluntary participation of prisoners in research.<sup>1(pp67-69)</sup>

- Servatius: Witness, are you of the opinion that a prisoner who had over ten years' sentence to serve will give his approval to an experiment if he receives no advantage there from? Do you consider such approval voluntary?
- Leibbrand: No. According to medical ethics, this is not the case. The patient or inmate [is] basically brought into a forcible situation by being arrested ...
- Servatius: Are you of the opinion that eight hundred prisoners under arrest at various places who give their approval for an experiment at the same time do so voluntarily?
- Leibbrand: No.
- Servatius: You do not distinguish as to whether the experiments involve permanent damage ... or whether it is temporary?
- Leibbrand: No.
- Servatius: If such prisoners are infected with malaria because they declared themselves willing do you consider that .... admissible?
- Leibbrand: No, because I do not consider such a declaration of willingness right from the point of view of medical ethics. As prisoners they were already in a forced situation.

Servatius's question about infection with malaria became clear when he confronted the German witness and the American jurists with the 4 June 1945 issue of the American periodical *Life* magazine. This issue featured several photographs of the inmates of prisons in Georgia, New Jersey, and Illinois, participants in a federally sponsored malaria research program. After his discussion of the prison malaria experiments and citations to other American experiments involving prisoners, Servatius pointedly asked Leibbrand about the acceptability of such experiments on a captive population:

- Servatius: Now will you please express your opinion on the admissibility of these experiments?
- Leibbrand: On principle I cannot deviate from my view mentioned before on a medical, ethical basis. I am of the opinion that such experiments are excesses and outgrowths of biological thinking.

By this line of questioning, Servatius sought to establish the similarities of the concentration camp experiments with the research conducted in American prisons, thereby mitigating the degree of Nazi culpability. Despite this effective cross-examination, the American judges at Nuremberg found Karl Brandt and 15 of his colleagues guilty of war crimes and medical crimes.

To reach their conclusions about the guilt and innocence of the medical defendants, the judges articulated a set of ten principles of "Permissible Human Experiments." These principles, which were formulated in the pre-trial preparation and during the trial itself, have come to be known as the Nuremberg Code. In developing the principles, the American judges at Nuremberg relied heavily on two American physicians, the physiologist Andrew C. Ivy and psychiatrist Leo Alexander.<sup>2</sup>

Sources: (1) Moreno JD. *Undue Risk: Secret State Experiments on Humans*. New York: Routledge; 2001. (2) Weindling P. The origins of informed consent: The International Scientific Commission on Medical War Crimes, and the Nuremberg Code. *Bull Hist Med*. 2001;75:37-71.

## EXHIBIT 17-2

### THE NUREMBERG CODE

---

In their book, *the Nazi Doctors and the Nuremberg Code*, Annas and Grodin discussed the American influence on the formation of the Code.<sup>1(p135)</sup>

At the Nuremberg Doctors' Trial, the American prosecutors relied on two expert American witnesses, the Chicago physiologist Andrew C. Ivy and Boston neurologist and psychiatrist Leo Alexander. For the benefit of the American lawyers, Alexander wrote a 6-point memorandum entitled "Ethical and Non-Ethical Experimentation on Human Beings." The similarity between Alexander's memorandum and the rules for permissible human experimentation (what would come to be known as the Nuremberg Code, [shown below]), especially his first principle that the "legally valid voluntary consent of the experimental subject is essential" have prompted some authors to credit Alexander with the primary authorship of the Nuremberg Code. However, in his summation, chief prosecutor James McHaney relied on both Andrew's memorandum and the testimony supplied by Andrew Ivy during the trial to argue the guilt of the Nazi physicians.

#### Directives for Human Experimentation

##### NUREMBERG CODE<sup>2</sup>

1. The voluntary consent of the human subject is absolutely essential. This means that the person involved should have legal capacity to give consent; should be so situated as to be able to exercise free power of choice, without the intervention of any element of force, fraud, deceit, duress, over-reaching, or other ulterior form of constraint or coercion; and should have sufficient knowledge and comprehension of the elements of the subject matter involved as to enable him to make an understanding and enlightened decision. This latter element requires that before the acceptance of an affirmative decision by the experimental subject there should be made known to him the nature, duration, and purpose of the experiment; the method and means by which it is to be conducted; all inconveniences and hazards reasonable to be expected; and the effects upon his health or person which may possibly come from his participation in the experiment.  
The duty and responsibility for ascertaining the quality of the consent rests upon each individual who initiates, directs or engages in the experiment. It is a personal duty and responsibility which may not be delegated to another with impunity.
2. The experiment should be such as to yield fruitful results for the good of society, unprocurable by other methods or means of study, and not random and unnecessary in nature.
3. The experiment should be so designed and based on the results of animal experimentation and a knowledge of the natural history of the disease or other problem under study that the anticipated results will justify the performance of the experiment.
4. The experiment should be so conducted as to avoid all unnecessary physical and mental suffering and injury.
5. No experiment should be conducted where there is an a priori reason to believe that death or disabling injury will occur; except, perhaps, in those experiments where the experimental physicians also serve as subjects.
6. The degree of risk to be taken should never exceed that determined by the humanitarian importance of the problem to be solved by the experiment.
7. Proper preparations should be made and adequate facilities provided to protect the experimental subject against even remote possibilities of injury, disability, or death.
8. The experiment should be conducted only by scientifically qualified persons. The highest degree of skill and care should be required through all stages of the experiment of those who conduct or engage in the experiment.
9. During the course of the experiment the human subject should be at liberty to bring the experiment to an end if he has reached the physical or mental state where continuation of the experiment seems to him to be impossible.

(Exhibit 17-2 continues)



**Exhibit 17-2** *continued*

10. During the course of the experiment the scientist in charge must be prepared to terminate the experiment at any stage, if he has probable cause to believe, in the exercise of the good faith, superior skill and careful judgment required of him that a continuation of the experiment is likely to result in injury, disability, or death to the experimental subject.

Sources: (1) Annas GJ, Grodin MA. *The Nazi Doctors and the Nuremberg Code: Human Rights in Human Experimentation*. New York: Oxford University Press; 1992. (2) Reprinted from *Trials of War Criminals Before the Nuremberg Military Tribunals Under Control Council Law No. 10*. Vol. 2. Washington, DC: US Government Printing Office; 1949: 181–182.

ent country in a different time, and had little relevance to the search for new drugs and procedures to cure human ills.

The disparity between events in wartime Germany and efforts in postwar America was furthered by the American popular press, which helped sustain an image of human experimentation as a noble, if potentially risky, enterprise as practiced in American hospitals and medical schools. In the years between 1948 and 1960, popular magazines like *The Saturday Evening Post*, *Readers Digest*, and *American Mercury* featured stories about “human guinea pigs” and self-sacrificing scientists who willingly exposed their own bodies to risk for the benefit of science.<sup>17</sup>

In 1952, for example, the *New York Times* reported the death of an 18-year-old college honor student at the University of Washington, one of 40 volunteers in “an experiment connected with war research on blood preservation.” What is remarkable about the short article is the matter-of-fact reporting of the boy’s death, the willingness of the physicians—Robert H. Williams and Clement Finch—to “gladly participate in the same experiment tomorrow,” and the father’s insistence that he held no one at fault for his son’s death. Rather than blame the investigators or the institution, Stanley Leedom told reporters “I just don’t want this tragedy [the death of his son] to deter in any way from the blood donor program or these experiments.”<sup>18(p18)</sup>

### Expansion of Rules to Protect Research Subjects

As the pace of clinical research accelerated rapidly in the years after the end of World War II, issues relating to human experimentation did not disappear. The scientific literature and the papers in the archives of medical institutions suggest the strains and tensions that using human subjects created for some experimenters. At the University of California at San Francisco (UCSF), for example, researchers at the Laboratory of Experimental On-

cology (LEO) confronted these issues in the search for treatments for patients with terminal cancer. In the early 1950s cancer researcher Michael Shimkin and his colleagues were criticized for performing “drastic, deleterious procedures on patients” and for using a release form for admission to the research ward that was “psychologically harmful,” including as it did provision for autopsy should the patient die. On a visit to the National Institutes of Health (NIH), which funded the LEO, Shimkin met with NIH director James Shannon to discuss the accusations that his group was performing “vivisection on man.” Following this meeting, Shimkin introduced several “remedial steps,” including review by the cancer board of the medical school of “all new departures in clinical research.”<sup>19(p127)</sup>

Shimkin organized a public symposium on the issues relating to human experimentation with a physician colleague, Otto Guttentag, in October 1951. Although it may have been difficult for researchers to confront the differences between therapeutic and nontherapeutic studies on human subjects, Guttentag, a homeopath by training, directly explored the tensions in clinical investigation. Distinguishing the “physician-friend” from the “physician-experimenter,” Guttentag worried that the experimenter would not be able to resist taking advantage of a patient’s distress in the interests of advancing knowledge. In his view,

research and care would not be pursued by the same doctor for the same person, but would be kept distinct. The physician-friend and the physician-experimenter would be two different persons as far as a single patient is concerned...<sup>20(p210)</sup>

The publication of the symposium presentations by Guttentag, Shimkin, Berkeley law professor Alexander Kidd, and W.H. Johnson of the Judge Advocate General Corps of the United States Army was delayed, according to Shimkin, by negotiations over clinical research policies at the soon-to-be-opened Clinical

Research facility at NIH, but the symposium papers eventually appeared in *Science* in 1953.<sup>20–23</sup>

In the 1960s, NIH director James Shannon confronted disturbing public revelations about two research projects funded by the Public Health Service and NIH. The first involved efforts to transplant chimpanzee kidneys into human patients at Tulane University. In 1963, Tulane surgeon Keith Reemtsma performed 13 transplants using kidneys taken from chimpanzees.<sup>24</sup> Although most of his patients died after 9 to 60 days, one patient lived an astonishing 9 months with the xenotransplant. This success spurred transplanters in other medical centers to undertake similar animal–human transplants, surgeries that received considerable public attention<sup>25–27</sup> and raised moral questions.

The second concerned research into cancer cells conducted at the Jewish Chronic Disease Hospital in Brooklyn, New York. The principal investigator, Chester Southam, a researcher at the Sloan-Kettering Cancer Research Institute, had injected live cancer cells into indigent elderly patients without their consent. In addition to the absence of peer review, Southam proceeded with the project over the objections of three physician consultants who insisted that the patients were not able to consent to the research. Both Southam and the hospital's medical director Ernest Mandel received censure by the New York Board of Regents. Although their medical licenses were suspended, the order was stayed and the doctors placed on probation for 1 year. But the case generated considerable publicity.<sup>28,29(pp161–162)</sup>

The growing interest in the rights of research subjects prompted Shannon in late 1963 to convene a committee charged with studying the problem of protection for the human subjects of research. This committee, chaired by NIH administrator Robert Livingston, recommended no changes in NIH policies and warned that a code or standards for acceptable research would impede or delay medical research. Shannon, however, continued to believe that the current recommendations were inadequate. Working with Luther Terry, the Surgeon General of the US Public Health Service, Shannon proposed to the National Advisory Health Council, a committee created to advise the surgeon general, that NIH should accept responsibility for formal controls on individual investigators. When William Stewart succeeded Terry as surgeon general in 1966, he ordered all PHS grantee institutions to take steps to review all proposed research involving human subjects, in order to protect the rights and welfare of the individual subjects, to consider the methods used to secure informed consent to the experiment, and to assess the risks and benefits of the investigation.<sup>30(pp99–100)</sup>

## Public Health Service Exemption From Research Controls: The Tuskegee Study

In 1966, at the same time that Public Health Service (PHS) policy required compliance with this directive to protect human subjects, the Venereal Disease Division of the PHS was continuing the Tuskegee Syphilis Study, its long-running study of the effects of untreated syphilis in black men in rural Alabama. None of the guidelines for peer review and the protection of human subjects applied to the PHS's own research projects. When Peter Buxton, a PHS field investigator in San Francisco, continued to question the morality of the syphilis nontreatment study, he was invited to attend a Centers for Disease Control (CDC) meeting on syphilis research where he heard PHS officers defend the research project.<sup>31</sup>

Despite efforts to persuade Buxton that the study would benefit physicians who treated African Americans who had syphilis, he left the meeting feeling that nothing had been resolved. Buxton resigned from the PHS in 1967 and entered law school the following year. In 1968, he wrote a second letter to the CDC about the “political dynamite” that a study restricted to black participants represented. When Dr. David Sencer, director of the CDC, read the letter, he agreed that the study could become a public relations problem for the government agency.

In 1969, the CDC created a blue-ribbon panel to determine whether the Tuskegee Syphilis Study should be terminated. The only member of the panel previously unfamiliar with the study, Eugene Stollerman, chair of the Department of Medicine at the University of Tennessee, was the only one to insist that the Public Health Service had an obligation to treat the men for their disease. Over Stollerman's objections, the committee recommended continuation of the no-treatment study. In light of the “impossibility” of securing informed consent from the poorly educated and impoverished Tuskegee subjects, the committee recommended a form of “surrogate informed consent,” namely approval of the Macon County Medical Society, which by 1969 consisted primarily of black physicians. Rather than criticize the CDC doctors, members of the medical society agreed to help investigators by promising that

if they had a list of individuals [in the study] that they would not knowingly give them antibiotics...but would refer them locally to the health department and to Nurse Rivers [the black nurse who maintained patient contact for the PHS investigators].<sup>7(pp198–199)</sup>

Only 3 years later, in 1972, did the public revelation that government doctors had withheld penicillin from black men infected with syphilis supply the catalyst for the US Congress to take action on the issue of human subject protections. For nearly a decade, Senators Jacob Javits (Republican, New York), Ted Kennedy (Democrat, Massachusetts), and Walter Mondale (Democrat, Minnesota) had sponsored legislation calling for oversight of NIH research and experimentation conducted under the auspices of the Department of Defense. The public hearings in February through July 1973, chaired by Senator Kennedy, included testimony from several surviving Tuskegee participants who related an extensive list of government evasions, misrepresentations, and deceptions. The heated controversy over human experimentation, fetal research, and psychosurgery created momentum for the passage in 1974 of the National Research Act. Signed into law by President Richard Nixon, the legislation included a provision for the creation of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. The National Research Act also required that all research involving human subjects undergo review and that investigators document the written informed consent of their research subjects.

Since 1974, the system of localized institutional review boards (IRBs) set into place by the National Research Act has been criticized as ineffective in protecting the rights of human subjects. In March 1998 the Office of the Inspector General of the Department of Health and Human Services issued a report—*Institutional Review Boards: A System in Jeopardy*—sharply critical of the institutional review board system, and containing recommendations for recasting the federal IRB requirements to strengthen protections for human subjects participating in research and insulate IRBs from conflicts that potentially compromise their responsibility to protect human subjects.<sup>32</sup> In June 2000, Donna Shalala, Secretary of Health and Human Services, established a new office to replace the former Office for Protection From Research Risks. At the recommendation of Dr. Harold Varmus, then director of the National Institutes of Health, Shalala created the Office for Human Research Protection, locating it in the Office of the Secretary to give the office greater independence and stature and to provide a platform to influence human subjects protection. To strengthen human subjects protection, new certification programs for individual IRB members and institutions have been developed. According to Dr. Greg Koski, the Director of the OHRP, “we are witnessing the move to a professional model for human research.”<sup>33(p132)</sup>

## HUMAN EXPERIMENTATION DURING THE COLD WAR ERA

### The Nuremberg Code and the United States Government

In consideration of preparations necessary to meet the threat of nuclear, chemical, and biological weapons being developed in communist countries, American military interest in human experimentation increased. In 1953 Colonel George Underwood, director of the Office of the Secretary of Defense, noted the need for an agency-wide policy to guide the conduct of human experimentation by military researchers. High-ranking committees within the armed services had debated policies for human experimentation for several years.

On the recommendation of DoD attorney Stephen Jackson, the Armed Forces Medical Policy Council (AFMPC) advised the secretary of defense in 1952 that “the ten rules promulgated at the Nuremberg trials be adopted as the guiding principles to be followed.” Jackson’s recommendation did not sit well with other DoD committees, who preferred to forego a policy statement that might retard research progress. “To commit to writing a policy on human experimentation would focus unnecessary attention on the legal aspects of the subject,”<sup>34(p57)</sup> noted the

secretary of the Committee on Medical Sciences in November 1952.

Despite this opposition, Charles Wilson, President Eisenhower’s new secretary of defense, signed off on the AFMPC recommendation in February 1953. Issued as a Top Secret Memorandum (Exhibit 17-3) to the secretaries of the Army, Navy, and Air Force, the Wilson memorandum affirmed the Nuremberg principles, required the written consent of research subjects, and prohibited experimentation using prisoners of war. Although the reasons for classifying the rules for research are less than clear, it seems likely that making the document classified information limited its circulation among military researchers.<sup>35(p308)</sup>

The Army quickly acted to put the Wilson memorandum into effect. Although initially classified, the Wilson order was declassified in 1954. The Army’s memorandum on the Wilson order included a legal analysis identifying the source of the Army’s authority to conduct human experimentation, as well as the limits of that authority in the selection of human subjects. As the Advisory Committee on Human Radiation Experiments noted in its report in 1995, even during the height of the Korean War,

### EXHIBIT 17-3

#### THE WILSON MEMORANDUM: FORMALIZING THE USE OF HUMAN VOLUNTEERS IN DEPARTMENT OF DEFENSE EXPERIMENTAL RESEARCH

---

26 Feb 1953

Memorandum for the Secretary of the Army

Secretary of the Navy

Secretary of the Air Force

SUBJECT: Use of Human Volunteers in Experimental Research

1. Based upon a recommendation of the Armed Forces Medical Policy Council, that human subjects be employed, under recognized safeguards, as the only feasible means for realistic evaluation and/or development of effective preventive measures of defense against atomic, biological or chemical agents, the policy set forth below will govern the use of human volunteers by the Department of Defense in experimental research in the fields of atomic, biological and/or chemical warfare.
2. By reason of the basic medical responsibility in connection with the development of defense of all types against atomic, biological and/or chemical warfare agents, Armed Services personnel and/or civilians on duty at installations engaged in such research shall be permitted to actively participate in all phases of the program, such participation shall be subject to the following conditions:
  - a. The voluntary consent of the human subject is absolutely essential.
    - (1) This means that the person involved should have legal capacity to give consent; should be so situated as to be able to exercise free power of choice, without the intervention of any element of force, fraud, deceit, duress, overreaching, or other ulterior form of constraint or coercion; and should have sufficient knowledge and comprehension of the elements of the subject matter involved as to enable him to make an understanding and enlightened decision. This latter element requires that before the acceptance of an affirmative decision by the experimental subject there should be made known to him the nature, duration, and purpose of the experiment; the method and means by which it is to be conducted; all inconveniences and hazards reasonably to be expected; and the effects upon his health or person which may possibly come from his participation in the experiment.
    - (2) The concept [*sic*: consent] of the human subject shall be in writing, his signature shall be affixed to a written instrument setting forth substantially the aforementioned requirements and shall be signed in the presence of at least one witness who shall attest to such signature in writing.
      - (a) In experiments where personnel from more than one Service are involved the Secretary of the Service which is exercising primary responsibility for conducting the experiment is designated to prepare such an instrument and coordinate it for use by all the Services having human volunteers involved in the experiment.
    - (3) The duty and responsibility for ascertaining the quality of the consent rests upon each individual who initiates, directs or engages in the experiment. It is a personal duty and responsibility which may not be delegated to another with impunity.
  - b. The experiment should be such as to yield fruitful results for the good of society, unprocurable by other methods or means of study, and not random and unnecessary in nature.
  - c. The number of volunteers used shall be kept at a minimum consistent with item b., above.
  - d. The experiment should be so designed and based on the results of animal experimentation and a knowledge of the natural history of the disease or other problem under study that the anticipated results will justify the performance of the experiment.
  - e. The experiment should be so conducted as to avoid all unnecessary physical and mental suffering and injury.
  - f. No experiment should be conducted where there is an a priori reason to believe that death or disabling injury will occur.
  - g. The degree of risk to be taken should never exceed that determined by the humanitarian importance of the problem to be solved by the experiment.

(Exhibit 17-3 continues)



**Exhibit 17-3** *continued*

- h. Proper preparation should be made and adequate facilities provided to protect the experimental subject against even remote possibilities of injury, disability, or death.
  - i. The experiment should be conducted only by scientifically qualified persons. The highest degree of skill and care should be required through all stages of the experiment of those who conduct or engage in the experiment.
  - j. During the course of the experiment the human subject should be at liberty to bring the experiment to an end if he has reached the physical or mental state where continuation of the experiment seems to him to be impossible.
  - k. During the course of the experiment the scientist in charge must be prepared to terminate the experiment at any stage, if he has probable cause to believe, in the exercise of the good faith, superior skill and careful judgment required of him that a continuation of the experiment is likely to result in injury, disability, or death to the experimental subject.
  - l. The established policy, which prohibits the use of prisoners of war in human experimentation, is continued and they will not be used under any circumstances.
3. The Secretaries of the Army, Navy and Air Force are authorized to conduct experiments in connection with the development of defenses of all types against atomic, biological and/or chemical warfare agents involving the use of human subjects within the limits prescribed above.
4. In each instance in which an experiment is proposed pursuant to this memorandum, the nature and purpose of the proposed experiment and the name of the person who will be in charge of such experiment shall be submitted for approval to the Secretary of the military department in which the proposed experiment is to be conducted. No such experiment shall be undertaken until such Secretary has approved in writing the experiment proposed, the person who will be in charge of conducting it, as well as informing the Secretary of Defense.
5. The addresses [sic] will be responsible for insuring compliance with the provisions of this memorandum within their respective Services.

/ signed /

C. E. WILSON  
Copies furnished:  
Joint Chiefs of Staff  
Research and Development Board  
TOP SECRET  
Downgraded to UNCLASSIFIED  
22 Aug 75

the Army did not view it as self-evident that the Department of Defense could engage in human experimentation or choose any subjects it wished.<sup>34(p61)</sup> Limits to the practice of subjecting human subjects to scientific experimentation were recognized in theory, if not always in practice, as the human radiation experiments attest.

### **The Human Radiation Experiments**

In December 1993 Eileen Welsome, a reporter for the *Albuquerque Tribune*, and Hazel O'Leary, US Secretary of Energy, reopened a dark chapter in American Cold War history—the use of human subjects in research involving ionizing radiation. The Cold

War was over and the Department of Energy had embarked on an “openness initiative.”<sup>36(p424)</sup> Welsome and O'Leary were on separate tracks that eventually collided—Welsome began her inquiries into the plutonium injection cases in 1987; O'Leary was confirmed as Secretary of Energy in 1993. Secretary O'Leary embarked on a campaign to reverse the “culture of secrecy” that had permeated the Atomic Energy Commission/Department of Energy (AEC/DOE). Among other things she changed the name of the Office of Classification to the Office of De-Classification. Her 7 December 1993 press conference was the first in a series to “clear the air.” In the press conference, O'Leary conceded that the government had conducted radiation experiments on American

citizens. This concession was prompted by the 45-page series on the plutonium injections, written by Welsome, that appeared in the *Albuquerque Tribune*.<sup>36</sup> Although it is true that the human radiation experiments had never been completely secret, it is also true that the full nature and extent of human radiation experimentation in the years between 1944 and 1974 had not been known to the American public. The report, *American Nuclear Guinea Pigs*,<sup>37</sup> commissioned in 1986 by Congressman Edward J. Markey (Democrat, Massachusetts, 7th District) had included information on the 18 patients who had received plutonium injections, as well as many others. Welsome provided additional information on the plutonium injections, including patient names and family photographs of the patients who participated in the studies. In 1994 President Clinton appointed the Advisory Committee on Human Radiation Experiments, chaired by Johns Hopkins bioethicist Ruth Faden, to explore and document the extent of the human radiation studies. The committee produced the most extensive compilation to date of the American use of human subjects at the dawn of the atomic age, the extent of injury to research subjects, and the continuing challenges for human subjects research.

### *The Plutonium Studies*

The experiments that brought renewed national attention to the issue of government-sponsored research involved plutonium, a radioactive metallic element first noted in 1941. As the United States pressed forward with the construction of nuclear weapons, scientists in the Manhattan Project grew concerned about the health effects of the substance for the hundreds of workers involved in the race to build a bomb. In order to answer the question about the biological effects of plutonium, 18 hospital patients were injected with the substance between 1945 and 1947. One received the plutonium injection at Oak Ridge Hospital in Tennessee, three at the University of Chicago, 11 at the University of Rochester, and three at the University of California. Although much remained unknown about plutonium, physicians involved in the research believed that injections posed little, if any, short-term risk to the subjects. Because long-term risk was possible, the doctors selected patients likely to die in the near future. Although several of the patients did die soon after their injections, a number survived for decades, despite the doctors' prognoses about their illnesses.<sup>38</sup>

The plutonium injections raised (and continue to

raise) difficult moral and policy considerations, including who should serve as subjects for experiments designed to protect workers in wartime. At the beginning of the experiments, even the word plutonium was classified information. One might ask how, under these circumstances, could informed consent be obtained from the participants, and what, if anything, were subjects or their families told about the injections? Did the patients know, for example, that they were taking part in a study that was not intended to benefit them? In all likelihood these individual subjects had no clear understanding of what was being done to them.

The first patient selected for injection was a 53-year-old "colored male," Ebb Cade, hospitalized for serious, but not life-threatening, fractures of his arm and leg.<sup>38(p144)</sup> Dr. Joseph Howland, an Army physician stationed at Oak Ridge, told AEC investigators in 1974 that he administered the injection of plutonium. There was, he recalled, no consent from the patient. He acted, he testified, only after his objections were met with a written order to proceed from his superior, Dr. Hymer Friedell. (The ACHRE was told by Friedell that another doctor, not Howland, had given the injection to Cade and that he had not ordered the injection.<sup>38(p144)</sup> ACHRE was not able to resolve this contradiction.) It remains unclear why Cade was selected for the experiment, and why no more injections were performed at Oak Ridge.

The next three plutonium injections took place at the University of Chicago, where all three patients were seriously ill and not expected to survive. (The first two died within 2 years of the injection; the date of death of the third remains unknown.) Like the Oak Ridge injection, the Chicago injections occurred without the consent of the individuals.

At the University of Rochester, the 11 patients who received plutonium injections were part of a larger project designed to set standards for radiation safety for workers in nuclear facilities. In addition to tests of plutonium, researchers under the direction of Dr. Samuel Bassett administered polonium to five patients and uranium to six people who were also selected from "a large group of hospital patients."<sup>38(p148)</sup> Doctors wanted patients with kidney function that was adequate enough to test the excretion pattern of the element. The patients selected to receive polonium were all suffering from terminal forms of cancer (such as leukemia) and therefore unlikely to live long. The uranium patients included those with rheumatoid arthritis, tuberculosis, cirrhosis, and alcoholism. The patients selected for plutonium and uranium injections did not include those with malignant disease. Although the

ostensible criteria for administering these radioactive substances was short life expectancy due to serious illness or injury, most of the patients injected at Rochester were not, in fact, terminally ill (at least three of the Rochester subjects were known to be living in 1974, and one of the subjects, Eda Schultz Charlton, 49 years old, participated in the experiments as the result of a mistaken diagnosis<sup>38(pp146-149)</sup>). The evidence assembled by the Advisory Committee supports the claims of family members that patients knew little, if anything, about the research projects and their status as research subjects.<sup>38(pp146-149)</sup>

At the University of California at San Francisco (UCSF), Doctors Joseph Hamilton and Robert Stone undertook metabolic studies to evaluate the potential risks for workers exposed to plutonium. After experimenting with rats, Hamilton and Stone injected three human subjects with plutonium; they also performed one injection of americium and one injection of zirconium in two different patients in 1947 and 1948. The first plutonium injectee was Albert Stevens, selected in the belief he was suffering from advanced stomach cancer. After the injection, researchers learned that rather than cancer, he had an ulcer. The researchers collected excreta from Stevens for more than a year testing for plutonium content. When Stevens wanted to leave the Berkeley area, the researchers offered him money to continue the collections for the study, but without disclosing to him the nature of his participation. Indeed, documents located by the Committee indicate that researchers considered two different options to retain Stevens, paying for his care in a hospital or a nursing home or placing the man on Dr. Hamilton's payroll in some minor capacity. The researchers were explicitly advised that he not "be paid as an experimental subject only."<sup>38(p150)</sup> In addition to Stevens, the UC researchers injected a 4-year-old cancer patient and a 36-year-old African-American railroad porter named Elmer Allen with plutonium. In Allen's case, two physicians signed his medical chart indicating that the experimental nature of the injection had been explained to him, that he agreed to be injected, and that he was of sound mind. Part of the reason for this chart notation was the ruling by Atomic Energy Commission (AEC) administrator Carroll Wilson in April 1947 calling for written documentation of consent from the patient-subject of a radiation experiment. Wilson's directive, however, also indicated that radiation experiments could be conducted only in the expectation of therapeutic benefit for the patient. Elmer Allen's physicians had no expectation that the plutonium would benefit him. Allen lived until 1991. Allen's daugh-

ter, Elmerine Whitfield-Bell, continues to dispute the documentation that her father agreed to the plutonium injections. In 1998 the federal government and the families of the patients who received plutonium injections agreed to a financial settlement.

### ***The Other Ionizing Radiation Studies***

The plutonium, polonium, and uranium studies were prominent in the public press, and thus there was more information gathered about these studies. However, they represent only a few of an estimated 4,000 human radiation experiments conducted under government auspices during the Cold War. Most of the 4,000 studies involved radioactive isotopes to tag molecules for the study of iron metabolism, thyroid metabolism, calcium uptake, blood volume, and so on. In addition to plutonium injections, notorious studies involving human subjects and ionizing radiation in this period included the studies conducted on "retarded" children at the Fernald School in Massachusetts, fed oatmeal containing radioisotopic iron and calcium as members of the "Science Club" (whose activities included getting a quart of milk daily, going to a baseball game and the beach, and having outside dinners); the Vanderbilt University studies in which pregnant women received a "vitamin cocktail" containing radioactive iron to examine nutritional requirements during pregnancy; experiments at Walla Walla State Prison in Washington state where prisoners were recruited to a study of the effect of radiation on testicles (prisoners agreed to undergo vasectomy after exposure to radiation); and studies in whole-body radiation conducted on a largely African-American patient population at the University of Cincinnati. As in the plutonium case, financial settlements between the subjects and their families and the research sponsors were reached in the late 1990s.

### **The Central Intelligence Agency and "Mind-Altering" Substances**

In April 1953, Allen Dulles, director of the Central Intelligence Agency (CIA), authorized the investigation of biological and chemical materials with the potential to alter mental states. In response to allegations of mind-control techniques performed by Chinese, North Korean, and Russian scientists on American prisoners of war during the Korean War, the MKULTRA program was established. (Little is known about the specifics of the program, or even, for that matter, the precise expansion of the acronym. The "MK" diagram identifies it as a

project of the Technical Services Staff of the Central Intelligence Agency. The "ULTRA" part may be related to the ULTRA program of World War II,<sup>39(p61)</sup> the program associated with cracking the German military codes.) Under the direction of scientist Sidney Gottlieb, the program encompassed examination of such drugs as nicotine, cocaine, and, perhaps most sensationally, the effects of the hallucinogenic drug lysergic acid diethylamine (LSD). Although most of the records relating to MKULTRA were intentionally destroyed by the agency in 1973, some details of the more than 150 individual government-funded research projects, especially the testing of LSD on unsuspecting participants, have become available since then.

The CIA-sponsored research was conducted at approximately 80 academic institutions across the nation. In November 1953, Gottlieb, without obtaining explicit permission, secretly extended his LSD studies to men on the staff of the Special Operations Division (SOD) at Fort Detrick. During a staff retreat, Gottlieb added LSD to a bottle of Cointreau, which was consumed by several men. One of those affected was Frank Olson, a scientist on the SOD staff and an expert on the airborne delivery of biological weapons. Following this episode, Olson apparently experienced severe mental distress, for which Gottlieb arranged special sessions with a New York physician with a top secret security clearance. On the eve of Olson's return to Maryland, where he was scheduled to enter a psychiatric facility, he fell through a 10th-floor window of the New York hotel where he was staying with CIA personnel. For more than two decades, the mysterious circumstances of Olson's death were unknown to his family. In 1975, following congressional hearings about CIA secret activities, Olson's surviving family received an apology from President Gerald Ford. In 1976, Congress enacted legislation authorizing a payment of \$750,000 to the family as compensation for their loss.<sup>40(pp191-192)</sup>

More than a quarter of a century later, questions about Olson's death remain troubling to his family. In January 2000, a New York district attorney reopened the case for a grand jury deliberation in light of forensic evidence that Olson received a blow to the head prior to his fall. Eric Olson, Frank Olson's son, believes his father was deliberately killed because he was deemed a security risk. According to the younger Olson, the CIA's declassified assassination manual from 1953 indicated that a preferred method for eliminating someone was to fake a suicidal jump.<sup>40(pp316-319),41</sup>

In the 1950s, the Army Chemical Corps secretly contracted with researchers at the New York State

Psychiatric Institute in New York City to test the effects of hallucinogens on their patient population. Under this contract, the Chemical Corps supplied the researchers with mescaline for testing in human subjects. In December 1952, when a 42-year-old tennis player, Harold Blauer, entered the Psychiatric Institute for depression, he was selected to receive five injections of three different experimental mescaline derivatives. Although Blauer experienced severe distress and violent tremors after the fourth injection, his physicians proceeded as planned with the fifth injection, a dose 16 times larger than he had previously received. Blauer died in little more than 2 hours following the fifth injection. The Army and the staff of the Psychiatric Institute and the state of New York actively concealed the embarrassing and distressing information that Blauer's death occurred in trials of a chemical warfare agent. Fearing for the doctors' professional reputations and the financial liability, the New York State attorney general's office offered the family of Harold Blauer \$18,000. The Army Intelligence Division clandestinely provided half of this amount to New York State.<sup>42</sup>

These details, like some of the details surrounding Frank Olson's death, came to light in 1975 as part of a Congressional probe into research on chemical and biological warfare agents.<sup>42</sup> In 1978, the family of Harold Blauer, which had pursued the case in the courts since 1953, was awarded \$702,000 in damages by the United States District Court for the Southern District of New York.<sup>40(p198)</sup>

Reports in the press in the early 1970s of clandestine testing by the CIA and the Department of Defense prompted investigations by Church Committee (named after Senator Frank Church, Democrat, Idaho) in the United States Senate and the Rockefeller Commission, appointed by President Gerald Ford and chaired by Vice President Nelson Rockefeller. Acting on the recommendations of the Church Committee, President Ford in 1976 ordered the first Executive Order on Intelligence Activities,<sup>43</sup> which included a provision forbidding "experimentation with drugs on human subjects, except with the informed consent, in writing and witnessed by a disinterested party, of each such human subject." Under the direction of Presidents Carter<sup>44</sup> and Reagan,<sup>45</sup> the order was expanded to encompass any kind of human experimentation.<sup>30(p107)</sup>

### **The US Army and Biological Warfare Tests in America**

Reports of biological weapons development by the Germans and the Japanese prompted the United States to institute a biological weapons research



initiative in 1941. With the support of Secretary of War Henry L. Stimson, the War Research Service, headed by George Merck, president of Merck Pharmaceuticals Company, opened a facility in 1942 at Camp Detrick (renamed Fort Detrick in 1956), Maryland for research on biological weapons. In January 1946 the Army publicly announced the nature of the facility, where research continued for the next 30 years. There were also reports in the public press about planning for the possibility of bacteriological warfare.<sup>46</sup> At Detrick, government scientists investigated anthrax, botulin and other toxins, and other infectious organisms for their potential as biological warfare agents. During the Cold War, American development of biological weapons encompassed large-scale animal experimentation (Detrick was the world's largest purchaser of guinea pigs), human volunteers, and surreptitious testing in 239 American cities between 1950 and 1969.<sup>47</sup>

In the years between 1954 and 1973, Army authorities recruited 2,200 American soldiers to participate in defensive biological weapons testing. Following a series of meetings between representatives of the Seventh-Day Adventist Church and the Army Surgeon General's Office, researchers were able to employ Seventh-Day Adventists serving in the military as noncombatants in light of the religious objections against bearing arms. In "Project Whitecoat," as the program came to be known, Adventists participated in studies of Q fever, tularemia, Venezuelan equine encephalomyelitis, Rocky Mountain spotted fever, sand fly fever, yellow fever, typhoid fever, and Rift Valley fever.<sup>48</sup>

According to Abram Beneson, director of experimental medicine at Fort Detrick in 1954 and 1955, researchers there were "very conscious" of the Nuremberg Code and insisted that volunteers be uncoerced and comprehending of the risks and benefits they would encounter in an experiment.<sup>49</sup> Participants in these studies signed written consent forms, which included a clause with a warning that death and injury were possible outcomes. Beneson recalled that Army lawyers informed him that such a consent form would not hold up if legally challenged, but Beneson persisted in order to insure that the men understood what their involvement in the project could mean. There were many more individuals who volunteered than could be accepted for participation in the project.

In addition to tests on human volunteers, Army researchers conducted deliberate releases of bacteria and aerosols in major cities to evaluate the vulnerability of Americans to biological attacks. Although many details about the testing programs remain secret, it is known that the Army conducted

tests over more than 200 cities between 1950 and 1969. Army researchers sprayed zinc cadmium sulfide, an aerosolized fluorescent powder believed to approximate bacterial agents as they were dispersed in the environment, in Minneapolis and St. Louis. In 1966 US Army researchers studied the vulnerability of the New York City subway system to bacterial attack by exposing more than a million people to a bacterium, *Bacillus subtilis variant niger*. Conducted by scientists and technicians, the test involved dropping light bulbs filled with bacteria into the subway system.

Perhaps the most serious known outcome of the bacterial testing program involved the release of the bacteria *Serratia marcescens* and *Bacillus globigii*. During World War II, the Germans had reportedly released *Serratia* bacteria in the subways of London and Paris. Fearing that the Pentagon was vulnerable to a germ attack, scientists from the Special Operations Division (SOD) at Fort Detrick in August 1949 sprayed *Serratia* bacteria into the vents of the Pentagon's air-conditioning system, revealing the vulnerability of the building to a germ attack. In 1950 the SOD demonstrated civilian susceptibility to such attacks by releasing *Serratia* microbes from the decks of two United States naval vessels anchored in the Atlantic. In September 1950 the tests were successfully repeated in the Pacific, where "nearly every one of the 800,000 people in San Francisco exposed to the cloud at normal breathing rate inhaled 5,000 or more fluorescent particles."<sup>50(p118)</sup>

Although these bacteria were believed to pose little threat to the population, physicians at Stanford University writing in October 1951 reported a startling outbreak of infections at the Stanford University Hospital in San Francisco. The outbreak was extraordinary because *Serratia* infections had never before been reported in hospitals. Moreover, in spite of extensive searching by the physicians, no cause of the outbreak could be traced. During the outbreak 11 patients developed the infection; one, Edward Niven, a pipefitter, died. In 1979 the Niven family sued the federal government for \$11 million for his wrongful death. The family lost the case, and failed to win an appeal from the United State Court of Appeals, but the discovery process in the trial brought much to light about the nature and extent of the government's biological testing program in the Cold War.<sup>51</sup>

The releases of these bacterial agents and aerosols were uniformly conducted without the knowledge or permission of the local population. People riding the subway system or simply breathing the air remained unaware of their exposure to either bacteria or aerosolized agents such as zinc cadmium

sulfide. The United States Army Center for Health Promotion and Preventive Medicine (the successor of the Army Environmental Health Agency) conducted three risk assessments for cities where the fluorescent particles were dispersed. In each of the three assessments, risk from exposures were less

than the standards set by the 1994 Occupational Safety and Health Administration. At the Army's request, the Centers for Disease Control (CDC) performed an independent risk assessment, concluding that zinc cadmium sulfide posed only negligible risk for the residents in the affected areas.<sup>52</sup>

## SECRECY AND SCIENCE

One of the principal rationales for covert and deceptive experimentation during the Cold War was the issue of national security. Engaged in an emerging global struggle with the communist bloc, the United States government strove to meet the threat. However, national security was not the only rationale for secrecy. Since the early 1940s, officials of the federal government had also followed regulations that allowed secrets to be maintained not only because their disclosure would endanger national security, but because such disclosure "would be prejudicial to the interests or prestige of the Nation."<sup>53(p392)</sup>

When it began operation in 1947, the Atomic Energy Commission expanded the practice of maintaining secrecy to encompass public relations, especially the threat of "embarrassment" and legal liability. For example, in 1946 Dr. Hymer Friedell, once the deputy medical director of the Manhattan Engineering District (created by the federal government in 1942 to meet the goal of producing an atomic weapon; the "Manhattan Project" was the central mission of the Manhattan Engineering District), recommended the declassification of one of the early reports describing plutonium injections into human subjects. Two months later, in February 1947, his recommendation was overridden on the advice of AEC officials, who noted that the "coldly scientific manner in which the results are tabulated and discussed would have a very poor effect on the public." Moreover, unless necessary legal documents had been executed, the report left the experimenters and the US government vulnerable to a "devastating lawsuit" with potentially far-reaching results.<sup>38(p153)</sup> Fears about legal liability and "administrative embarrassment" continued to play a role in AEC decisions to keep secret or reclassify experiments involving what UCSF researcher Robert Stone called "unwitting subjects."

In addition to maintaining the secrecy of human radiation experiments, the AEC adopted policies to forestall access to information relating to health risks that radiation posed to workers and to the public. The Insurance Branch of the AEC, for example, routinely reviewed declassification decisions with

the liability issue in mind. In so doing, they continued a practice adopted by Manhattan Project officials like Robert Oppenheimer, who in 1946 asked that all reports on health problems be separately classified and issued at his request, the purpose being to "safeguard the project [from] being sued by people claiming to have been damaged."<sup>54(p332)</sup>

Decisions to classify research as secret resulted not only from policy making at federal agencies but also ensued at the request of individual investigators. In the early 1950s, Everett I. Evans, a surgical researcher at the Medical College of Virginia, successfully petitioned the Army to classify his experiments on burns associated with radiation, but not because he feared criticism over human experimentation. Evans grew concerned about the potential adverse public relations of his experiments in which dogs obtained from local municipal shelters received fatal doses of radiation. In January 1951, Evans, alarmed by reporters investigating the dog studies, explained in a letter to Army authorities that "there is much about the [canine studies] that I do not like but we are doing it in a manner as humane as possible. The issue here is one of national security."<sup>53(p419)</sup> Fearing that local humane societies would prevent access to animals and thereby jeopardize the research program, Evans asked that his radiation studies be classified. The Army in response declared that all work under the Medical College of Virginia contract be identified as restricted. Thus, the desire to insure the continuity of the canine research also blanketed Evans' human radiation experiments on prisoners and hospital patients.

When the reports of the plutonium injections and other Cold War radiation experiments once again became "news" in 1993, many Americans were startled to learn about the extent of secret research programs conducted by the federal government. Many were puzzled by the realization that some things were secret and others were not. How could the radiation experiments be secret when many of them had been published openly in the medical literature and even reported in the public press when they occurred?

What is clear is that public tolerance for the Cold War culture of secrecy and science had changed dramatically. In the public testimony before the Advisory Committee on Human Radiation Experiments, many citizens came forward to express their distrust of government officials and governmental policies as they related to the issue of radiation exposure and research. Although many of the citizens who spoke recognized the need in the past for secrecy (in light of pressing national security concerns), they also expressed skepticism that such secrecy remained necessary in light of the profound changes around the world.

From the dawn of the atomic era, there has been ongoing tension between the openness required for

scientific inquiry and the defense establishment. A case can be made, Senator Daniel P. Moynihan has written, "that secrecy is for losers."<sup>55(p227)</sup> Secrecy in science corrodes the process of increasing our knowledge of the natural world, and secrecy in governmental science corrodes citizen trust of the government and its leaders. "Openness," noted Moynihan, "is now a singular, and singularly, American, advantage. We put it in peril by poking along in the mode of an age now past."<sup>55(p227)</sup> Although there are legitimate reasons for secrecy in developing weapons systems and other defense technologies, secrecy should not be permitted in experiments involving human subjects or, at the very least, outside review of the subjects' consent and safeguards to protect them must be ensured.

## CONCLUSION

During the last decade Americans have increasingly confronted the tragic record of clandestine and deceptive human experimentation in the 20th century. Expert commissions have issued reports, the injured have sought and received financial compensation, and the government has apologized to citizen-subjects of the Tuskegee Syphilis Study and the human radiation experiments. Lawsuits brought by veterans of biological, chemical, and atomic war-

fare studies continue to wend their way through the courts. These lawsuits permit a financial accounting of loss of life, liberty, and mental distress. They do not take into account the corrosion of trust in American researchers and the American government. Even more disturbing is the fear that these things could happen again unless adequate safeguards remain in effect and the lessons of the past are learned.

## REFERENCES

1. Faden RR. Chair's perspective on the work of the Advisory Committee on Human Radiation Experiments. *Kennedy Inst Ethics J*. 1996;6:215-221.
2. *Building Public Trust: Actions to Respond to the Report of the Advisory Committee on Human Radiation Experiments*. United States Government Human Radiation Interagency Working Group. March 1997; Publication 061-000-00880-20.
3. Warren KL. 66 volunteers given 'flash burns' in test. *Richmond News-Leader*. 8 December 1954.
4. 10 San Quentin felons used for atom tests. *San Francisco Examiner*. 12 April 1949.
5. Lederer SE. *Subjected to Science: Human Experimentation in America Before the Second World War*. Baltimore, Md: Johns Hopkins University Press; 1995.
6. Chernin E. Richard Pearson Strong and the iatrogenic plague disaster in Bilibid Prison, Manila, 1906. *Rev Infect Dis*. 1989;11:996-1004.
7. Jones JH. *Bad Blood*. New York: Free Press; 1993.
8. Gamble VN. Under the shadow of Tuskegee: African Americans and health care. *Am J Public Health*. 1997;87:1773-1778.
9. Kendrick DB. *Blood Program in World War II*. Washington, DC: Office of the Surgeon General; 1964.
10. Pechura CM, Rall DP, eds. *Veterans at Risk: The Health Effects of Mustard Gas and Lewisite*. Washington, DC: National Academy Press; 1993.

11. Rothman DJ. *Strangers at the Bedside: A History of How Law and Bioethics Transformed Medical Decision Making*. New York: Basic Books; 1991.
12. Harkness JM. *Research Behind Bars: A History of Medical Experimentation on American Prisoners* [dissertation]. University of Wisconsin; 1996.
13. Harkness JM. Nuremberg and the issue of wartime experiments on US prisoners. *JAMA*. 1996;276:1672–1675.
14. Katz J. The Nuremberg Code and the Nuremberg Trial: A reappraisal. *JAMA*. 1996;276:1662–1666.
15. Annas GJ, Grodin MA, eds. *The Nazi Doctors and the Nuremberg Code: Human Rights in Human Experimentation*. Oxford: Oxford University Press; 1992.
16. Cousins N. Dialogue in Warsaw: Report on the Ravensbrueck Lapins. *Saturday Review*. 1958;41:9–11, 32–36.
17. Faden RR, Lederer SE, Moreno J. US medical researchers, the Nuremberg doctors trial, and the Nuremberg Code. *JAMA*. 1996;276:1667–1671.
18. Contaminated blood injection kills youth in Seattle preservation research project. *New York Times*. 25 March 1952:18.
19. Shimkin M. *As Memory Serves: Six Essays on a Personal Involvement With the National Cancer Institute, 1938–1978*. Bethesda, Md: US Department of Health and Human Services, PHS, NIH; 1983.
20. Guttentag OE. The physician's point of view. *Science*. 1953;117:207–210.
21. Shimkin M. The problem of experimentation on human beings. *Science*. 1953;117:205–207.
22. Kidd AM. Limits of the right of a person to consent to experimentation on himself. *Science*. 1953;117:211–212.
23. Johnson WH. Civil rights of military personnel regarding medical care and experimental procedures. *Science*. 1953;117:212–215.
24. Reemtsma K. Renal heterotransplantation from nonhuman primates to man. *Ann N Y Acad Sci*. 1969;162(1):412–418.
25. Spare parts from chimp to man. *Time*. 27 December 1963:41.
26. 2 monkey kidneys transplanted into woman in pioneer operation. *New York Times*. 12 October 1963.
27. Schmeck HM Jr. Patient is alive after six weeks with two kidneys from a chimpanzee. *New York Times*. 18 December 1963.
28. Katz J. *Experimentation With Human Beings*. New York: Russell Sage Foundation; 1972.
29. Faden R, Beauchamp TL. *A History and Theory of Informed Consent*. New York: Oxford University Press; 1986.
30. Advisory Committee on Human Radiation Experiments. Government standards for human experiments: The 1960s and 1970s. In: *Final Report of the Advisory Committee on Human Radiation Experiments*. New York: Oxford University Press; 1996: 97–112.
31. Testimony by Peter Buxton from the United States Senate Hearings on Human Experimentation, 1973. In: SM Reverby, ed. *Tuskegee's Truths: Rethinking the Tuskegee Syphilis Study*. Chapel Hill: University of North Carolina Press; 2001: 150–156.
32. *Institutional Review Boards: A System in Jeopardy*. Washington, DC: Office of Inspector General, Department of Health and Human Services, Report OEI-01-97-00193; March 1998.
33. The JIM interview with Greg Koski, MD, PhD. *J Investigative Medicine*. 2001;49:131–133.



34. Advisory Committee on Human Radiation Experiments. Government standards for human experiments: The 1940s and 1950s. In: *Final Report of the Advisory Committee on Human Radiation Experiments*. New York: Oxford University Press; 1996: 45–73.
35. Annas GJ, Glantz LH, Katz BF. *Informed Consent to Human Experimentation: The Subject's Dilemma*. Cambridge, Mass: Ballinger Publishing; 1977.
36. Welsome E. *The Plutonium Files: America's Secret Medical Experiments in the Cold War*. New York: Dial Press; 1999.
37. *American Nuclear Guinea Pigs: Three Decades of Radiation Experiments on US Citizens*. Report prepared by the Subcommittee on Energy Conservation and Power of the Committee on Energy and Commerce, US House of Representatives, November 1986. Washington, DC: US Government Printing Office; 1986.
38. Advisory Committee on Human Radiation Experiments. Experiments with plutonium, uranium, and polonium. In: *Final Report of the Advisory Committee on Human Radiation Experiments*. New York: Oxford University Press; 1996: 139–171.
39. Marks J. *The Search for the Manchurian Candidate: The CIA and Mind Control*. New York: Norton; 1979.
40. Moreno JD. *Undue Risk: Secret State Experiments on Humans*. New York: Routledge; 2001.
41. Frank Olson Legacy Website. Available at: <http://www.frankolsonproject.org/index.html>. Accessed 26 November 2001.
42. US Army Inspector General. *Use of Volunteers in Chemical Agent Research*. Washington, DC: US GPO; 1975.
43. Executive Order 11905 (19 February 1976).
44. Executive Order 12036, Section 2-301 (26 January 1978).
45. Executive order 12333, Section 2-10 (4 December 1981).
46. Parr L. The professor talks about bacterial warfare. *Hygeia*. 1942;20:344–345, 364, 368–369.
47. Mobley JA. Biological warfare in the twentieth century: Lessons from the past, challenges to the future. *Mil Med*. 1995;160:547–552.
48. Smith KT. Adventists and biological warfare. *Spectrum*. 1996;25:35–50.
49. LoLordo A. Project Whitecoat: Human testing done with care. *Baltimore Sun*. 3 April 1994;1E.
50. Regis E. *The Biology of Doom: The History of America's Secret Germ Warfare Project*. New York: Henry Holt; 1999.
51. Cole L. *Clouds of Secrecy: The Army's Germ Warfare Tests Over Populated Areas*. Savage, Md: Rowman & Littlefield; 1990.
52. Committee on Government Operations, Subcommittee on Legislation and National Security, US House of Representatives, 28 September 1994, Oversight Hearing On Cold War Era Human Subject Experimentation, Statement of Michael A. Parker.
53. Advisory Committee on Human Radiation Experiments. Secrecy, human radiation experiments, and intentional releases. In: *Final Report of the Advisory Committee on Human Radiation Experiments*. New York: Oxford University Press; 1996: 390–420.
54. Intentional releases: Lifting the veil of secrecy. In: *The Report of the Advisory Committee on Human Radiation Experiments*. New York: Oxford University Press; 1996: 317–353.
55. Moynihan DP. *Secrecy*. New Haven, Conn: Yale University Press; 1998.



# Chapter 18

## MEDICAL ETHICS IN MILITARY BIOMEDICAL RESEARCH

MICHAEL E. FRISINA\*

---

### INTRODUCTION

#### THE NATURE OF MILITARY BIOMEDICAL RESEARCH

- Military Disease Hazards Research
- Medical Biological Defense Research
- Combat Casualty Care Research
- Human Systems Technology Research
- Medical Chemical Defense Research

#### THE ETHICAL LEGITIMACY FOR MILITARY BIOMEDICAL RESEARCH

- Should Military Biomedical Research Be Prohibited?
- The Nonparticipation Point of View
- The Participation Point of View
- National Risk vs National Security
- Summary

#### THE ETHICAL CONDUCT OF RESEARCH

- Criteria for Conducting Ethically Responsible Research
- Informed Consent
- Is It Ethical to Conduct Research on Soldiers?
- Practicality and American Moral Ideals
- The Persian Gulf War Experience
- The Dilemma of Choice
- Summary

#### ETHICS AND THE ISSUE OF ANIMAL EXPERIMENTATION

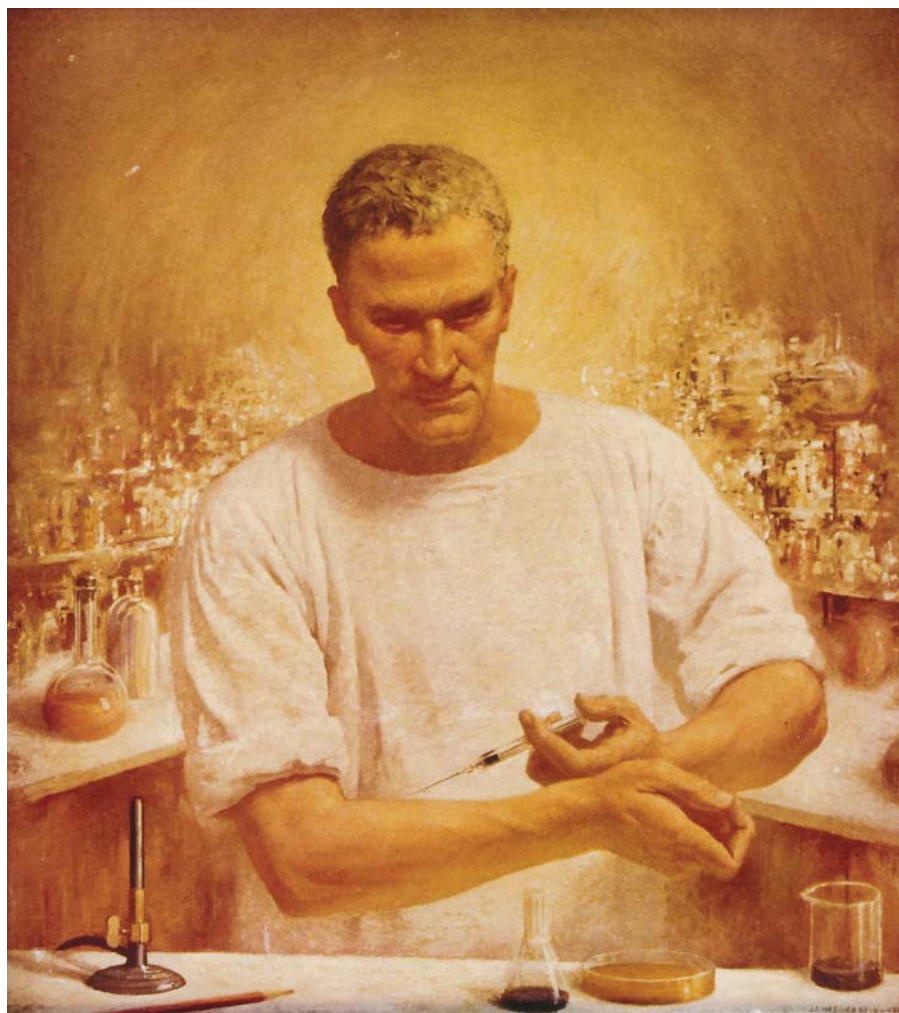
- The Moral Status of Animals
- Animal Suffering vs the Primacy of Human Life
- Application of Ethical Theory
- A Definitive Rights Position
- Summary

#### MILITARY WOMEN'S RESEARCH PROGRAM

#### THE PROBLEM OF EXCLUSION

#### CONCLUSION

\*Lieutenant Colonel (Retired), Medical Service Corps, United States Army; formerly, Director, Bioethics Program, Medical Research and Development Command, Fort Detrick, Maryland; formerly, Assistant Professor, Philosophy Division, Department of English, United States Military Academy, West Point, New York; currently, Administrative Director, Surgical Services, Tuomey Healthcare System, 129 North Washington Street, Sumter, South Carolina 29150



J.O. Chapin

*Research Heroic—The Self-Inoculation*

1944

The sixth of seven images from the series *The Seven Ages of a Physician*. As the painting title implies, the physician-researcher, following the ethical guidelines of research, is willing to inoculate himself in the pursuit of scientific knowledge for the betterment of all patients.

Art: Courtesy of Novartis Pharmaceuticals.



## INTRODUCTION

In his preface to *Principia Ethica*, Moore writes,

it appears to me that in ethics, as in all other philosophical studies, the difficulties and disagreements, of which history is full, are mainly due to a very simple cause: namely to attempt to answer questions without first discovering precisely what question it is which you desire to answer.<sup>1(pi)</sup>

The “precise question” of this chapter has two parts: (1) is there an ethical justification for military biomedical research? and (2) if military biomedical research is an ethically legitimate enterprise, can military biomedical researchers conduct their work in an ethically responsible manner?

As Moore suggests, the question of whether military biomedical research is ethically legitimate has its own history of difficulties and disagreements. Although there is little challenge that an ethical basis for biomedical inquiry exists in general, the line of distinction is extremely thin between (a) legitimate and ethical biomedical military research and (b) nonmedical research activity causing some researchers extreme moral anxiety over what they call, “the militarization of the biomedical sciences.” Certain scientists see the need to protect the benevolent nature of biomedical science (reducing morbidity and mortality) by maintaining complete dissociation from military-sponsored biomedical research.<sup>2</sup> An argument for nonparticipation, based on various sources, is the focus of a main section of this chapter, as is a counterargument for participation that concentrates on the first part of the question—the moral legitimacy of military biomedical research.

By their very nature, military biomedical research programs appear to be ethically suspect.<sup>3</sup> Even though military medicine enjoys a rich history of scientific advances in preventive medicine, the Society for Social Responsibility in Science, for example, advocates, “a tradition of personal moral responsibility for the consequences for humanity of professional activity...to ascertain the boundary between constructive and destructive work.”<sup>4(pp25–</sup>

<sup>26)</sup> The idea is that military biomedical research that is constructive, which I take to mean supports the goals and ideals of the healing tradition of medicine, is ethically legitimate. Military biomedical research that is destructive, contributing to harming or directly supporting the killing of human life, would be unethical. The ethical tension derives from trying to determine what biomedical research is constructive and what is destructive. One might

find, for example, no ethical objection to military biomedical researchers vaccinating soldiers to prevent them from dying of disease.<sup>5</sup> Is it just as ethical for those same researchers to investigate the efficacy of chemical protective clothing, or combat helmets and body armor with the same end in mind, preventing harm to the soldier? This view begs a question of whether any military biomedical research can be constructive, even vaccine research dating to Walter Reed himself. Consequently, there are various groups who advocate that all military vaccine research and development be controlled by public health agencies to preserve the constructive nature of this research. The purpose would be to reduce the potential for ethical conflict among researchers and to limit destructive applications of the science.<sup>6</sup> Arguments for distinguishing between offensive and defensive research will follow later in this text.

If there is an ethical distinction between constructive (defensive) and destructive (offensive) military biomedical research, there is a need to examine whether this research can be conducted in an ethically responsible manner. Protection of research subjects in military biomedical research is ethically essential. Currently, the Department of Defense (DoD) policy for the conduct and review of human subjects research, which applies to all elements of the DoD and to its contractors and grantees, upholds the protection of the fundamental rights, welfare, and dignity of human test subjects.<sup>5(p12)</sup> Likewise, the DoD purports to adhere to the strictest guidelines regarding the use of animal models in its research and development programs.<sup>6</sup> Animal protocols are subjected to layers of review at various command and service levels. While the entire subject of animal use remains under intense ethical scrutiny, the military seeks to be sensitive to the obligation of humane treatment of research animals and resolute in complying with all federal requirements for their care and use in biomedical research.

Finally, a discussion of the ethical conduct of military biomedical research needs to examine the efforts to expand scientific studies specific to the needs of military women. In the past, protocol designs have excluded military women for a variety of reasons. Now it is ethically essential to understand the reasons for the past exclusion of women and establish guidelines to alter the practices of the past. As the roles of military women expand, they will confront a host of new medical challenges. Re-

search efforts must look to address these new challenges to preserve and maintain the health and safety of military women.

In summary, this chapter will consider the ethical nature of military biomedical research to determine its moral legitimacy. If found to be an ethically legitimate enterprise, it then must consider the ethical obligations and responsibilities inherent to

conducting this research. The ethical tension in the first part of this question is profound. If there is no inherent moral legitimacy to conducting military biomedical research, that is to say, if all military biomedical research is destructive in nature, then no amount of ethical conduct, regulatory compliance, or open disclosure to the public can change the inherent immorality of the research.

## THE NATURE OF MILITARY BIOMEDICAL RESEARCH

The nature of military biomedical research is linked to the objective of conducting research and development studies that address relevant and significant military-related problems.<sup>7</sup> To be militarily significant, the research and development study must have immediate or long-range usefulness, as distinguished from the general advancement of knowledge of medicine. The requirement for the research to be militarily significant stems from the passage of the Mansfield Amendment in the 1970 military appropriations bill. The amendment required that the DoD only fund research that could solve military problems. The intent of this legislation has been stretched in recent years with the DoD budget containing funding for breast cancer research. Critics of the funding of military biomedical research point to this program as lacking a “direct and apparent relationship to a specific military function or operation.”<sup>7(p78)</sup> Many scientists would prefer to be funded from sources other than the military and face personal ethical conflict about whether to apply for grant money from the military. This conflict aside for the moment, the Mansfield Amendment does place practical and ethical limitations on military biomedical research that opens the door to problematic, contentious, and serious ethical issues about its nature and conduct. Consequently, to better understand the ethical issues at stake, a brief description of the various military biomedical research programs is appropriate. Once the nature of these programs is understood, one can begin to determine the fundamental question of their moral legitimacy, clarify the constructive and destructive aspect of their applications, and develop an ethical construct for the conduct of this research.

Currently, military biomedical research comprises five major research areas: (1) military disease hazards research, (2) medical biological defense research, (3) combat casualty care research, (4) human systems technology research, and (5) medical chemical defense research. The military conducts biomedical research and development in its own

medical research laboratories, institutes, and non-governmental laboratories through contracts with universities and industry. The fundamental purpose of this research, as stated previously, is to solve military medical problems of importance to national defense. Each of these research areas pose a proverbial double-edged sword regarding their medical orientation thereby upholding principles of healing and preventing harm as opposed to the notion of destructive applications of the research that would then associate this research with nonmedical purposes. This tension is pervasive throughout the ethical analysis of military medical research and this discussion will return to it continually.

### Military Disease Hazards Research

The major thrust of military disease hazards research includes basic and applied studies related to prevention, diagnosis, and treatment of infectious diseases that could threaten the success of military operations. Basic research in microbiology, immunology, pathogenesis, and vectors transmission of disease is designed to improve the technology base for development of disease prevention, war-fighting sustainment, and treatment measures. Applied research focuses on the development and testing of vaccines, prophylactic and therapeutic drugs, and rapid identification and diagnostic methods and equipment.

The military human immunodeficiency virus (HIV) research program is a component of the military disease hazards research program. The goals of this program are aimed at reducing the incidence of new HIV infection in military populations, reducing the rate of progression from asymptomatic to symptomatic disease, and reducing the HIV-attributable death rate. Research projects focus on evaluating the courses of infection in military populations, identifying risk factors related to transmission, testing and evaluating vaccines for prophylaxis, and testing and evaluating drugs and vaccines for early intervention.

## **Medical Biological Defense Research**

The goal of medical biological defense research is to ensure the sustained effectiveness of US military forces in a biological warfare environment by providing medical countermeasures that deter, constrain, and defeat a biological warfare threat. Basic research concentrates in three areas of protecting the US military's war-fighting capability during a biological attack: (1) prevent casualties with medical countermeasures (vaccines, toxoids, drugs); (2) diagnose disease (forward deployable kits, confirmation assays); and (3) implement treatment methods (antitoxins and drugs) to prevent lethality and maximize return to duty rates.

An essential element of this program is publishing in scientific journals to maintain scientific credibility, demonstrating an open program in support of the Biological Weapons Convention (BWC) treaty, and developing an element of deterrence. The element of deterrence associated with a medical biological defense research program differs from the concept of nuclear deterrence. In nuclear deterrence potential adversaries basically play the old game of "chicken" with each party to a potential conflict threatening a retaliatory strike in the event the other side conducts a first strike. The possibility of either side launching an offensive strike with the opposing side capable of retaliating deters either side from using the weapon. This concept of retaliation does not apply to biological weapons.

The problems inherent with biological weapons include verification (what countries have them) and enforcing mechanisms against their development and use (ie, the BWC). Unlike a nuclear attack, biological agents for use as weapons are readily available. Another dissimilar factor is the capability of terrorists to acquire and use biological agents. Therefore, the element of deterrence in the biological arena is not one of retaliation but of defense—if it is possible to be protected from biological agents, then the use of those agents by an adversary has no tactical or strategic advantage from a military perspective. Defense against biological weapons includes the need for effective international measures of verification; international agreements against proliferation of offensive research programs; and a defensive research program for detection, identification, and treatment measures to decrease the military advantage and usefulness of biological warfare agents. Specific arguments regarding the deterrence effect of a medical biological research program will be developed in the following section of this chapter.

## **Combat Casualty Care Research**

The mission of combat casualty care research is to provide integrated capabilities for medical care and treatment of injured soldiers at all levels of care, far forward on the battlefield, to reduce mortality and morbidity, and effect early return of soldiers to their military duties. Research and development are conducted in areas of wound healing, thermal burns, hemorrhagic shock, sepsis, organ system injury, blood preservation and blood substitutes, combat stress, and field medical materiel. Basic research in areas of wound healing and the pathophysiological response to trauma of cellular and organ metabolism attempt to minimize mortality, lost duty time, and unnecessary evacuation due to minor combat trauma. Enhanced readiness to treat combat casualties focuses on developmental efforts in surgical equipment, resuscitation fluid production systems, and computer-assisted diagnosis and life-support equipment.

The ethical tension created by combat casualty care research stems from the type of research necessary to solve the problems of the modern day battlefield. Projectile weapons with high muzzle velocities create different types of wounds than those normally seen in hospital emergency rooms. Thus, training combat surgeons on wounds created by weapons with low muzzle velocities does not prepare them for what they will see in combat. Simulation with gelatin molds is inadequate in wound healing experiments as well. Consequently, military medical researchers have sought for years to gain approval to study ballistic phenomena using animal models. However, to date, animal rights groups have prevented the establishment of any such facility. The prospect of military medical researchers shooting anesthetized, stray dogs to gain knowledge for improving the level of care of wounded soldiers on the battlefield was believed to be unethical by these groups. Further discussion of the issue of the use of animals in military medical research follows in a later section of this chapter.

## **Human Systems Technology Research**

The purpose of human systems technology research is to enhance human capability to function safely and effectively in military systems and operations. This research attempts to identify and solve health problems posed by new combat materiel and new concepts for combat operations. The results of this research help health policy makers

and combat materiel developers keep the limits of human physiological and psychological endurance in mind when developing new doctrine and new military hardware. The major areas of this research include physiology in extreme environments, biomechanical stress, operational medicine and human performance, health effects of toxic hazards, and non-ionizing radiation bioeffects. Program goals seek to enhance soldiers' performance under all operational conditions; protect soldiers from hazards of military materiel and operations; develop human performance models; and improve military operations concepts, policies, and doctrine.

The central focus of human systems technology research, like the other research areas, is preventing injury to the combat soldier. Although the aim of this research is consistent with the goal of medicine—to sustain and enhance the quality of human life—the potential for ethical conflict is considerable when medical researchers conduct studies that do not focus solely on the welfare of a human being but focus also on maintaining and sustaining a person's physical and psychological efficiency as a soldier—a human weapon system.

One aspect of this potential conflict concerns the use of soldiers as human research subjects. To determine the possible deleterious effects of new military hardware on military personnel, human trials must eventually be conducted. Historically, military researchers have been negligent in protecting the rights of research subjects.<sup>8</sup> The advent of institutional review boards (IRBs), other systematic review procedures, and federal regulations provide the means for protecting human subjects—even soldiers. Nonetheless, there is a tension, if not competition, between protecting the rights of research subjects on the one hand and conducting research that some view essential to national security interests on the other.

### **Medical Chemical Defense Research**

The mission of medical chemical defense research is to preserve combat effectiveness by timely provision of medical countermeasures in response to chemical warfare defense needs. Research efforts in this area strive to maintain the technologic capability to meet present requirements and to counter

future threats, to provide the degree of individual-level protection and prevention to preserve the fighting strength of combat units, and to provide for the medical management of chemical casualties to enhance survival and to maximize and expedite returning soldiers to duty. Basic research includes investigation of pharmacology, pathophysiology, and toxicology of chemical warfare agents, pretreatment and antidote drugs, and skin decontamination compounds to determine both their mechanisms of action and their interaction with one another.

The ethical dilemma associated with medical chemical defense research is the inability to conduct human trials to demonstrate the efficacy of pretreatment or antidote drugs because to do so would mean having to expose research subjects to actual chemical agents. Consequently all current pretreatment and antidote drugs remain unlicensed by the US Food and Drug Administration (FDA). In a letter dated 30 October 1990, during Operation Desert Shield (ODS), the deployment phase of the Persian Gulf War, the Department of Defense applied for a waiver to use investigational pretreatment drugs under an investigational new drug application filed with the FDA.<sup>9(pp346–348)</sup> Such use, intended for therapeutic use, not research, caused an acrimonious debate in the editorial pages of the country's leading newspapers. The charge against the DoD was that it was experimenting with these drugs on soldiers without their informed consent. References to the Nazi doctors' experiments during World War II were elicited in statements against the approval of the FDA waiver. Maintaining a distinction between research and accepted medical practice is a philosophical problem that has troubled medical ethics for a long time. The conclusion of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research holds two key factors in mapping this distinction: (1) the level of risk, and (2) the intent of the medical professional.<sup>8</sup> The waiver issued by the FDA for the Persian Gulf War did not solve the ethical problem of the military in trying to balance the rights and welfare of its members against the military necessity of sustaining a combat ready force. Nor, for that matter, does the criteria of level of risk and intent settle the issue of whether a medical professional is doing research or providing accepted medical therapy.

### **THE ETHICAL LEGITIMACY FOR MILITARY BIOMEDICAL RESEARCH**

[I]t is deemed unethical for physicians to...weaken the physical and mental strength of a human being

without therapeutic justification [and to] employ scientific knowledge to imperil health or destroy life.<sup>10</sup>



In examining the ethical justification for military biomedical research, one finds that the literature on this issue runs the gamut of political and sociological perspectives. Views tend to be polarized ranging from complete prohibition of any military-sponsored biomedical research on the one hand, to secret programs that would include testing on an unwitting and uninformed populace on the other. Both of these extreme views are unethical positions. Complete prohibition of military medical research cannot be morally acceptable because it results in moral evil, namely failing to preserve the health and welfare of soldiers deployed in combat. Secret programs also result in moral evil and consequently are unethical. If there is any possibility of bringing these diverging groups closer to some middle ground perhaps it is found in the quotation cited above from the World Health Association.

Implicit in this quotation is the “do no harm” principle. The many efforts by those opposed to biomedical research by the military stem from their attempt to preserve this principle—keep medical scientific knowledge from becoming “militarized” and used to harm rather than to heal. Ironically, those who support military biomedical research also base their arguments on a “firstly, do no harm” principle. The aim of military biomedical research is, in fact, to go beyond this principle of nonmaleficence (avoiding harm) by preserving and enhancing the lives of those who serve the military forces of the United States (the principle of beneficence).

The ethical tension that develops from the principle of nonmaleficence is whether the moral legitimacy of medical research, in general, applies to military medical research. The moral legitimacy of medical research is based on the good that results from the research enterprise. So too, the moral legitimacy of military biomedical research must stem from the good it produces mitigated against any harm that is likely to result as well. Because most medical researchers desire that their science alleviate human suffering, many are reluctant to participate in military medical research for fear that medical research is akin to weapons research in the physical sciences and engineering. The fear that military medical research aids in the development of biological and chemical weapons keeps many scientists from participating in military medical research and others calling for its complete prohibition. The major claim of this argument is that scientists who participate in military research fuel the arms race. Military sponsorship of scientific research determines and influences the type of research con-

ducted. Hence any scientist who accepts military sponsorship is *de facto* working for the military, its aims, goals, and objectives. Because military activity is antithetical to the principles of science, ethical problems exist for those scientists who participate in military-sponsored research—to include medical research. The question to ponder is whether those who support a military biomedical research program and those who oppose it can stand together on the same moral high ground.

As alluded to earlier, complete dissociation from military medical research, while eliminating any moral problems for scientists, also risks losing the benevolent gains in vaccines, drug therapies, and material preventive and protective measures relevant to military problems but also to direct civilian applications of this research. For example, the development of a number of investigational vaccines against diseases such as Venezuelan equine encephalomyelitis (VEE), tularemia, anthrax, Q fever, and botulism were safe and efficacious in reducing disease from accidental exposure to laboratory workers. The use of VEE vaccine proved useful in eradicating the disease in horses in the epizootic in Texas in 1971. The Rift Valley Fever vaccine was used successfully in high-risk personnel during an outbreak of the disease in Egypt in 1977 and 1978. In 1989 military investigators identified an Ebola-like virus in monkeys and in 1995 military investigators were part of the World Health Organization team to investigate the Ebola outbreak in Africa. Since the 1950s, military medical researchers have been investigating the Hantaan virus known to cause the disease called Hemorrhagic Fever with Renal Syndrome (HFRS) that has already killed more than 50 people in the United States.

Although these research advances have direct civilian application, the research has greatly reduced the morbidity and mortality of military personnel. Historically disease and nonbattle injuries have accounted for over two-thirds of the combat losses suffered by the United States in past military engagements. In Vietnam, although disease was the single greatest cause of morbidity, the admission rate was 40% less than the Korean War due largely, in part, to the efforts of military biomedical research and development.<sup>11</sup> This point alone should be sufficient to undermine the moral claim that complete dissociation from military medical research completely upholds the principle of “do no harm” or eliminates any ethical problems for medical scientists. Clearly the loss of medical advances stated previously would result in tremendous harm but the misuse

of this medical knowledge also presents the possibility of greater evil than the good that results from it.

Despite the possibility of consensus building upon the “do no harm” principle, military biomedical research does present a double-edge sword. Most often what is learned in the area of biomedical research has potential uses for both good and evil. Clearly, in some cases, there is a distinction between offensive (destructive) and defensive (constructive) research. Consistent with previous discussion of the just war doctrine, the distinction between offensive and defensive research (and medical research is defensive unless one views biological defense as offensive in bioweapons development) becomes morally important. Certainly scientists who view their work as consistent with this doctrine are no more unethical than soldiers who do the fighting. Likewise, scientists who choose not to participate are no more unethical than a pacifist or conscientious objector who would object to any participation in killing—even a just war. What is critical regardless of the path chosen by a scientist is that if military medical research is morally legitimate, areas of scientific inquiry remain open programs and the knowledge gained from this research cannot be subverted by weapons designers to defeat advances in reducing injury and disease.

Consequently, in reviewing the arguments on this issue, three major areas of dispute emerge. First, there is disagreement because funding is limited and continued financing of a military program compels university and industry to accept military projects to get much-needed research grants. As time goes on, so it is suggested, these researchers, having been coerced into accepting DoD money, are compelled to work solely on military goals that may detract, for example, from vaccine research in public health initiatives. Second, there is the argument that the defensive (constructive and benevolent) component of segments of the military biomedical research programs is ambiguous enough to cause other nations to believe that the United States is working on offensive developments. Hence, military biomedical research could lead to a proliferation of biological and chemical weapons. Third, there is, at a minimum, an implicit position that the production of vaccines and drugs against devastating disease, although a laudable goal, cannot be viewed in isolation solely for the protection of US military forces. The production and selective use of military biomedical advances can be viewed as a component of strategic offensive policy that would not benefit general populations, particularly those

of developing nations where the United States is most likely to engage in offensive operations.

Disagreements about the funding of the scientific enterprise in the United States and how to best achieve the goals associated with that enterprise extend beyond military biomedical research. Those opposed to military programs view the use of limited national resources for military purposes as immoral. They contend that shifting of military dollars to public health agencies, such as the National Institutes of Health, will provide the same benefits the military program currently produces. The difficulty with this position is that some military problems have no immediate direct impact on public health; thus research aimed specifically at military problems would be neglected. The economic burden, which has a moral component, is balancing the use of financial resources for social purposes mitigated against the needs to protect national security.

Considering the history of the development of the atomic bomb, many scientists have come to believe that they have no control over the results of their work when conducted under the auspices of military funding and oversight. Their argument is simple: The only way to control the results of one's work is to control what one works on in the first place. The ambiguity related to biological defensive versus offensive research is such that many scientists claim the only way to control proliferation of biological weapons, for example, is to not participate in any military-sponsored biological research. Some contend there is no distinction at all between offensive and defensive biological research and contend the military simply mislabels offensive research as defensive to attract researchers. This argument is critical to the moral legitimacy claim of military biomedical research and will be developed further in this chapter.

Finally, is it possible that if the United States can protect its military from endemic diseases in a combat zone or use technology to advance healing of its wounded soldiers, that these medical interventions constitute contributing to the military aims of war fighting and hence lack the moral legitimacy of the healing arts in general? The question of the extent to which a member of the healing profession may participate in activities not strictly medical and still uphold the principle of “do no harm” is an interesting and debatable one. It is, however, to ask a different question (back to Moore again) than whether medical professionals directly engaged in preventing or relieving suffering of soldiers constitute direct contribution to offensive activity.

## Should Military Biomedical Research Be Prohibited?

The question of specifically prohibiting military biomedical research is embedded in a larger argument regarding the ethics of prohibiting or limiting research.<sup>12–15</sup> The ethical issues at stake in this debate are part of a spectrum of issues revolving around fundamental decisions of scientists to participate or refuse to participate in research based upon the perceived social consequences of their work. The dual nature of military biomedical research fundamentally establishes this ethical conflict for researchers pondering participation in military programs. The conflict stems from a genuine conviction that doing what can be done to enhance the lives and well-being of members of the US military is a moral obligation—what ethicists call a *prima facie* duty—one ought to do good when one is able to do it. When taken alone, this principle is unassailable. When juxtaposed to a competing claim, namely, “do no harm,” these ethical principles appear in conflict. The problem then becomes how to decide which principle carries greater weight in the ethical decision-making process. One method is to conduct a risk/benefit analysis to determine which action produces the greater benefits (good) while limiting harm (evil).

There are several versions of risk and benefit arguments used by those opposed to direct involvement of biomedical scientists in military biomedical research.<sup>3,16,17</sup> The forms of the arguments tend to run from the general to the specific. One attempts to argue that there are good reasons to limit scientific inquiry in general and then demonstrate limiting or restricting specific inquiry. Such arguments are persuasive only to the extent that the general argument itself is sound in its reasoning—that the general premises are true and that the conclusion to limit or prohibit research follows from those premises.<sup>13</sup>

Usually these types of arguments are difficult to answer. In developing a risk/benefit ratio, the facts needed to evaluate a premise or calculate a risk or benefit are not known. This is not the case with military biomedical research. It is known with a great degree of certainty that medical research can produce a host of preventive and therapeutic treatments that will benefit the lives of military personnel with considerable applications to the general populace at large. The inherent risk, based on historical evidence, of the likely perversion of this research for nefarious purposes is also known.<sup>3,6,16</sup> The difficulty faced in solving this problem is not a fac-

tual one but rather one of differing values and deciding how to proceed. There are honest disputes about whether the medical advances produced by military biomedical research are worth the possible risk of medical scientists being exploited and the proper end of the healing arts being perverted for evil purposes. Hence the fundamental question shifts from one of moral legitimacy of military medical research to one of whether the potential benefits of this research are such to pursue it, knowing the potential for harm. In other words, can this research be conducted in such a manner as to preserve the integrity of the research? Can a system of appropriate checks and balances be established that will allow the conduct of research when the probability of harm resulting from the research is unknown? A review of the basic arguments is appropriate at this time.

## The Nonparticipation Point of View

Those who hold that physicians should not participate in any form in military research believe that there are three “steps” that occur in the corruption of military medical research. These are: (1) the militarization of medicine, (2) the inevitable escalation of biologic and chemical weaponry because of the products of military medical research both in US forces and the forces of any adversary, and (3) with this escalation a violation of law, morality, and ethics. I will discuss each in turn.

## Militarization

Those opposed to military biomedical research argue against the possible offensive uses of this research. The most contentious and likely research program for possible offensive applications is the Medical Biological Defense Research Program. Critics contend that defensive research to protect military members from naturally occurring diseases and biological weapons is, “highly ambiguous, provocative, and strongly suggestive of offensive goals...it is urged that physicians refuse participation in such research.”<sup>18(pp25–26)</sup>

Nonparticipationists document that overall funding for military programs increased by more than 400% in the late 1980s. Over the same period of time, federal support for research in basic science issues in the civilian sector sharply declined.<sup>18</sup> From 1980 to 1984, total federal research support in the United States for life sciences decreased by 2% while DoD funding increased by 26%. With 100 university labo-

ratories participating in DoD programs with this increased funding, nonparticipationists perceive a trend that could alter research priorities in developing fields, such as genetic engineering.<sup>5</sup>

Nonparticipationists also argue that military operations can never be exclusively defensive, that biological research is fraught with ambiguity between offensive and defensive applications and, therefore, medical professionals who conduct research for the military are in "ethical peril." To strengthen this claim, critics of the military program contend that public funding supporting a military program does not serve the public interest, particularly in time of budget cutting. The nonparticipationist also claims that the threat of disease either endemic or as a biological weapon is overstated by the military. Further they suggest that the responsibility for governmentally sponsored medical research for prophylactic, protective, and other peaceful purposes in the United States belongs to the National Institutes of Health (NIH) and the Centers for Disease Control (CDC). Consequently, the NIH or CDC should have the responsibility and, more importantly, the resources for this type of medical research.<sup>3,16</sup> Such a position is less likely to pervert nature of biomedical research and, most importantly, less likely to place medical professionals in ethical peril.

### **Escalation**

Universal agreement exists by those opposed to military biomedical research (within the area of vaccine and drug development) that such research will lead to a biological arms race analogous to the development of nuclear weapons.<sup>16</sup> Although the nonparticipationist will concede that the production of vaccines against devastating diseases is a laudable goal, such conduct cannot be ethically judged in isolation from the purposes of the agencies who directly supervise the research effort. It is possible that a medical scientist might consent to, or be misled into, work that has offensive applications under the guise of defensive work.

When the military supports large programs to develop vaccines against exotic diseases that pose no likely public health concern such as dengue fever, anthrax, VEE, and numerous pathogens, one can make informed speculations of the likely use of these pathogens as offensive weapons knowing one's own soldiers are protected against them. Consequently this research can be construed as a potential component of offensive strategy that would drive likely adversaries into similar research programs and hence the escalation of a biological arms race. Therefore,

medical scientists have the responsibility not only to avoid working directly in ways that support offensive development, but also to act in such a way as to avoid contributing to the arms race, even if engaged in clearly defined defensive research.

### **Violation**

Following from the assertion that biological medical research by the military cannot be solely defensive in nature, medical scientists have an obligation to not participate in research. US government policy and international agreements forbid the development, production, and stockpiling of microbial or other biological agents, or toxins that have no justification for prophylactic, protective, or other peaceful purposes. Interpretation of Article I of the Biological Weapons Convention<sup>19</sup> (BWC) is ambiguous in that it does not preclude research into offensive agents necessary to determine what means are required to defend against them.

Nonparticipationists contend that because the line of distinction between offensive and defensive research remains blurred, medical scientists violate the spirit if not direct intent of the various agreements to avoid work that would contribute to the development of offensive capabilities with biological agents. Opponents of military biomedical research argue that material developments in diagnostic equipment and sensor devices potentially could produce vector delivery systems and that antibiotic therapy could really produce means to defeat or inhibit diagnosis, defeat current vaccine use, or generate a novel agent.

The advocates of nonparticipation concede that the study and production of some biological agents (for example, toxin proteins) may have scientific merit, but such work raises questions regarding US compliance with the BWC. Consistent with the logic of having the NIH conduct disease-oriented research, moving control of this type of research to civilian agencies would dispel concern about the offensive intent of the work, uphold the deterrent effect of the BWC, and protect against the perversion of the healing arts in medical research.

### **The Participation Point of View**

Those who hold that physicians should participate in military research answer the three "steps" by (1) exploring the complexities that the militarization argument overlooks, (2) maintaining that existing safeguards preclude inevitable escalation, and, thus, (3) there are no violations of law, morality, or ethics. Once again, I will discuss each in turn.



## Militarization

Those who advocate participating in military biomedical research reject the militarization viewpoint as confusing the primary aims of public health research versus the national defense interests and the health of military personnel. If the NIH, for example, were directed to accept the mission requirements of a military-oriented medical research program, this realignment of mission would hinder NIH research in diseases of national interest. If NIH sought to contract this research, it would be no different from the current program with the exception of civilian control. Some scientists advocate civilian control because of a prevailing attitude of distrust of military-sponsored research. Some contend that it is ethical to participate with the military in times of national crisis but doubt that permanent association has any moral imperative. Advocates of a military program counter this claim with evidence of the proliferation of biological warfare capabilities even by some countries who signed the BWC. As long as activities of Third World countries remain unpredictable regarding their intentions in offensive biological capabilities, a credible biological defense research program is needed.

This point is particularly relevant given that the United Nations revealed in August of 1995 that Iraq had an active offensive biological and chemical weapons program.<sup>20</sup> For over 4 years, Iraq had hidden all information of a program to produce and deploy almost 200 biological warheads—in bombs, artillery shells, and missiles, all capable of reaching Saudi Arabia and Israel during the Persian Gulf War. The bacterium anthrax was loaded in at least 50 bombs, and botulin—the toxin causing botulism—had been loaded into approximately 100 bombs. Additionally, Iraqi scientists grew a poisonous fungus found on peanuts and corn to produce aflatoxin, to be used as a warfare agent.<sup>20</sup>

Consequently, advocates of biomedical military research contend that given examples such as Iraq, participation by university and industry is consistent with an ethical imperative of developing the means by which the United States can protect and defend the lives of military personnel against a consistent threat of a potential adversary that threatens its national security.

## Escalation

The participationists espouse the view that whatever potential may exist for creating offensive applications from defensive research (the escalation factor), the possibility is extremely minute because

military biomedical research is perhaps the most closely monitored, regulated, and inspected research that occurs within the United States. An exhaustive environmental impact review of the military program was conducted in 1989 culminating with the publication of a final programmatic environmental impact statement (PEIS).<sup>21</sup> Congressional scrutiny is applied to this program in the annual budget review process. The military prepares resource requirements and program description and justification in the Congressional Descriptive Summary that becomes part of the President's budget. The House and Senate Armed Services Committees evaluate this program and authorize its funding. These committees perform their own evaluations and review of the military program prior to any final authorization and appropriation of funds. The General Accounting Office conducts periodic reviews and hearings on the appropriateness of the research and the use of resources consistent with the aims and intents of the program. Special interest groups, using the Freedom of Information Act, gain access to both research data and laboratories on a routine basis. The public and scientific community can and do act on their own initiative to review military research. Finally the military provides reports annually to the United Nations and to the Biological Weapons Convention. Consequently, rather than view this research as some secret, clandestine program that could mask offensive research or increase the paranoia of a potential adversary, participationists contend the opposite—that a completely open program, to include publishing in peer-reviewed journals, serves a function of deterrence (the use of an agent would have little or no strategic or tactical military advantage) and hence stability.

## Violation

Advocates of military biomedical research demonstrate the legal aspect of their work based upon the research conforming to regulations and standards of the following agencies: the US Department of Agriculture, Department of Health and Human Services, Food and Drug Administration, National Institutes of Health, Public Health Service, Centers for Disease Control, Department of Labor, Department of Transportation, Environmental Protection Agency, Department of Energy, Department of Commerce, and the Nuclear Regulatory Commission. Proponents of military medical research contend that this research is consistent with the intent of the BWC, particularly Article X that gives States that are Parties to the Convention the right to par-

ticipate in the fullest possible exchange of information, equipment, and materials for peaceful purposes.

Finally, regarding the alleged ambiguity of offensive and defensive research, supporters of military biomedical research hold that there is an empirical distinction that separates offensive from defensive research.<sup>17</sup> Citing the regulatory controls over this research, participationists contend that the likelihood of a rogue scientist developing an offensive capability under the guise of defensive research is highly suspect. Additionally, advocates of this research point to the historical record to substantiate the benevolent aspect of their work—the marked decrease in morbidity and mortality of soldiers deployed to combat zones. Participationists contend that those who doubt the defensive intent of their work can only talk of the potential to create offensive uses of biomedical advances or the possibility that military could develop offensive capabilities or future hypotheticals for offensive development. Meanwhile, countries like Iraq continue to demonstrate a resolve to blatantly ignore international agreement to limit the development and use of biological warfare agents, and worse, in doing so see themselves gaining a military equalizer to imbalances of their conventional military capability. Currently, there is little evidence to support the fears of the nonparticipationists regarding the legal aspects of military biomedical research. The ethical concerns remain in doubt, however, regarding the consistent application of law and ethics to military biomedical research in the future.

### **National Risk vs National Security**

Whether the merits of the contrasting views of militarization, escalation, and violation are persuasive depends upon one's first principle—the ethical standard one holds as dominant over other principles. To date, there is little in the professional literature of ethics demonstrating how traditional ethical principles apply to the dual nature of military medical professionals. Although the literature does discuss the social responsibility of medical professionals to include medical scientists, there is, in fact, very little to clarify the competing duties of the uniformed medical professionals to the military, to society, and to their patients. Thus far this discussion has focused on the competing nature of the duty of military medical professionals between their patients and society but only from the standpoint of preserving the ethical integrity of the healing professions. Another aspect to consider is that mili-

tary biomedical research, as beneficial as it might be to military personnel with subsequent civilian applications, by its nature creates significant risks for local civilian populations and hence ought to be prohibited. The solution to this vexing problem again hinges upon some kind of risk and benefit analysis.

Dispute currently exists about what risks are worth taking when pursuing research. These risks include potential harm to research subjects, non-research subjects, and the researchers themselves. Identifying risks to research subjects (participants) requires formulating risk and benefit equations as discussed previously. These risks are different from the kind that populations at large face from potential accidents or sabotage. Furthermore, the public has demonstrated resolve to protect itself from such risks.<sup>22–25</sup> Based on the principle of justice, current ethical practices in research require a fair and equitable distribution of burdens and benefits. When the issues of human subject research in the military are in question, if the risks are disproportionate to the benefits then there would be grounds to ethically suspect the conduct of the research.

Risks to nonresearch participants include the issue of public safety. Several aspects of military medical research, particularly in the area of infectious disease, pose at a minimum a potential public health threat in the event of a laboratory accident. The issue of public safety revolves around the idea of real versus perceived threat that the research poses to public health. Nonetheless, there have been several challenges to military medical research projects being conducted at university labs as well as government facilities. How much risk is ethically acceptable must be mitigated against the potential harm to an unsuspecting or, worse, uninformed local population. Finally, there is also the question of how much risk is acceptable for the researchers themselves. For example, should a lab worker working with virulent anthracis cells drop the flask containing the cells on the floor, the infected lab worker could be treated with penicillin. The spill would be treated with chlorine bleach that would kill the cells. Hence, the issue of public risk versus military benefit is mitigated by the ability to conduct risk and benefit analysis.

Having said all this, the general principle of prohibiting research that poses unacceptable risk (and the operative word is unacceptable) has merit. There is a trade-off regarding the perceived risks and the reasonable precautions or likelihood of there being a real threat to a community, particularly from military biomedical research. Currently, all biomedical

research protocols conducted by the military undergo intense scrutiny at all levels of institutional review for scientific merit, protection of research subjects, and safety. The application of the risk principle applies to the entire research community, not just the military.<sup>26</sup> Consequently, the question becomes one not about the moral legitimacy of military biomedical research but one of inherent risks, in magnitude far greater than civilian research so as to limit or prohibit its conduct.

## Summary

There seems to be a prevailing attitude among certain scientific circles that if the military is funding research, there must inherently be something nefarious about its conduct. The military has contributed to this perception in the past by conducting unethical research. The lysergic acid diethylamide (LSD) studies (which were discussed in detail in Chapter 17, *The Cold War and Beyond: Covert and Deceptive American Medical Experimentation*) for example, are clearly unethical judged by the standards of the day regarding the lack of informed consent from research subjects. Even though these experiments were not medical protocols, military medical research tends to be painted with the same broad brush of suspicion based upon a lapse of ethical judgment from the past.

There is a line, be it distinct or vague, between justifiable and unjustifiable biomedical research and the use of these data for purposes that violate the integrity of the medical community. Such a possibility exists for all medical data, not just data from military medical research.<sup>27,28</sup> More problematic are those protocols designed in other than biomedical programs that require the participation of medical personnel to validate the data. For example, while enhancing the lethality of a particular weapon, developers may request the participation of biomedical

personnel to verify the lethal or nonlethal aspects of the weapon. This is the case with recent studies in the development of nonlethal microwave weapon technology that has a lethal capability. Such an example poses a more vexing issue for the biomedical researcher who may be participating in research that has no benevolent goal, even if one argues that a nonlethal incapacitating weapon is benevolent versus a lethal weapon. Using medical knowledge for the purpose of causing harm, for instance to validate that a particular weapon has capacity to kill or maim in order to increase the capacity of that weapon to do so, is simply the wrong use of medicine and medical research, because it turns the medical researcher into a weapons developer. Furthermore, such an example clearly demonstrates the point regarding the issue of social responsibility and the consequences of research. No person, operating in any capacity, ought to be compelled to act in such a way as to violate personal conscience or moral obligations. Nor should medical professionals use medical knowledge for the expressed purpose of endangering or destroying life.

Indeed, there are two parallel issues that emerge regarding the ethical legitimacy of biomedical research. Returning to the principle of “do no harm,” there is a distinction to be made between research that has benevolent ends and research that has nonbenevolent ends. Medical professionals ought to stay in the business of healing and not hurting, which includes not participating in or contributing to weapons research and development. However, there is also a need to establish a clear distinction between offensive and defensive goals within the realm of biomedical military research. Even though this is not an ideal world, preserving the ethical integrity of biomedical research and providing for the welfare of military personnel ought not be competing or mutually exclusive goals. Both can be done and both should be done.

## THE ETHICAL CONDUCT OF RESEARCH

“Research is a complicated activity in which it is easy for well-meaning investigators to overlook the interests of research participants—to the detriment of the participants, scientists, science, and society.”<sup>29(p1)</sup> Upholding the ethical principles of biomedical research is part of the intricacies of the entire research enterprise. The breaches of ethical principles, be they intentional or unintentional, are replete in the historical literature.<sup>30–34</sup> From the Nazi doctors (discussed in Chapters 14 and 15 in this volume) to the

infamous Tuskegee syphilis studies and the more recent revelations of radiation studies conducted by the US Department of Energy (discussed in Chapter 17 of this volume), breaches in conduct exist. Such conduct has led to the promulgation of the Nuremberg Code, The Declaration of Helsinki, the Belmont Report, and a host of federal regulations in an attempt to provide clear guidelines regarding the ethical conduct of biomedical research.

These efforts notwithstanding, while scientific

research continues to produce substantial social benefits, it continues to pose vexing ethical questions regarding the protection of human subjects, the use of nonhuman animals, and expanding study populations to include women and minority groups. Military biomedical research is not immune to these questions. Hence there is a need to consider how each of these issues impact, in an ethical sense, the conduct of biomedical research in the military.

### Criteria for Conducting Ethically Responsible Research

The National Commission for the Protection of Human Subjects in Biomedical and Behavioral Research conducted hearings on the ethical problems in human research from 1974 to 1977. The mission of this panel as outlined in its summary statement, was, in part, to

conduct a comprehensive investigation and study to identify the basic ethical principles that should underlie the conduct of biomedical and behavioral research involving human subjects.<sup>8</sup>

The recommendations of the panel were later codified into public law.<sup>35</sup> The fruit of the National Commission's labor appears in *The Belmont Report*.<sup>8</sup> The three basic principles, intended as succinct guidelines to govern the use of human subjects in research, include<sup>8(PartB)</sup>:

1. Beneficence: maximize the good outcomes while avoiding or minimizing unnecessary risk, harm, or wrong;
2. Respect: protect the autonomy of persons, with courtesy and respect for individuals as persons (as ends in themselves and not mere means); and
3. Justice: ensuring reasonable, nonexploitive, and carefully considered procedures and their fair administration—fair distribution of risks and benefits among persons and groups.

These three principles are the foundation for the following six norms that govern the ethical conduct of research<sup>29(p19)</sup>:

1. Valid research design: valid design yields correct results taking into account relevant theory, methods, and prior studies;
2. Competence of the researcher: the investigator must be capable of conducting various procedures in a valid manner;

3. Identification of consequences: a risks and benefits analysis must be conducted. Ethical research adjusts procedures to ensure privacy, confidentiality, minimized risks, and maximized benefits;
4. Selection of subjects: the subjects must be appropriate for the purposes of the study, representative of those who will benefit from the research, and appropriate in number;
5. Voluntary informed consent: voluntary means freely, without threat or inducement. Informed means the subject knows what a reasonable person in the same situation would want to know prior to granting consent. Consent means an explicit agreement to participate; and
6. Compensation for injury: the researcher is responsible for what happens to a research subject. Federal law requires that subjects be informed regarding compensation for injury, but the law does not require compensation.

The application of the general principles and norms stated above often narrow specifically to three fundamental requirements: (1) informed consent, (2) risk and benefit assessment, and (3) the selection of subjects of research. Of these three areas, informed consent (deriving from the Nuremberg Code, 1947) is the most contentious regarding the use of soldiers as subjects in research. Why is informed consent important? What does it entail? Is consent different from mere approval? The answers to these questions are found in the federal regulations written to address these situations.

### Informed Consent

Although the importance of informed consent is generally unquestioned,<sup>36,37</sup> there is controversy over whether it is possible to actually obtain truly informed consent from a research participant. General agreement exists regarding the three basic elements in the consent process: (1) information, (2) understanding, and (3) voluntariness. The aspect of information requires full disclosure by the investigator including a statement of the purpose of the research, description of foreseeable risks and discomfort, description of benefits, a disclosure of alternative procedures, statement regarding confidentiality of the records, explanation of compensation and medical treatment for injuries resulting from participation, a point of contact regarding the rights of the research volunteer, a statement regarding the voluntary nature of the participant, and any addi-



tional information regarding the findings of the research, withdrawal criteria, or circumstances by which the investigator can terminate the participation of the research volunteer.

How well a research subject understands or comprehends information relevant to the research is dependent upon a number of factors. Because comprehension is often a matter of how the investigator conveys information to the research volunteer, the investigator needs to tailor the informed consent process to each individual based upon the subject's intelligence, maturity, language level, and other special aspects of the participant. If necessary, a third party is part of the process to assess the understanding of the research participant. Printing consent forms in the native language of the subject may be necessary as well as providing interpretation for those subjects who may not be able to read the consent form. On the face of it, using a subject who cannot read a consent form sounds, in and of itself, ethically suspect. Such practice is acceptable regarding children and may be acceptable in other instances as well. The key component is the aspect of comprehension. Regardless of how the information is conveyed and the level of comprehension obtained, investigators are responsible for ensuring that the subject comprehends all the information.

The aspect of voluntariness of consent that differs from mere approval is the element of rights conveyed upon the volunteer in the consent process. This element requires conditions free from coercion and undue influence.

Coercion occurs when an overt threat of harm is intentionally presented by one person to another in order to obtain compliance. Undue influence, by contrast, occurs through an offer of an excessive, unwarranted, inappropriate or improper reward or other overture in order to obtain compliance.<sup>8(PartC)</sup>

Perhaps the least understood aspect of gaining informed consent is the communication process that takes place between the investigator and the research subject. Failing to understand the nuances of body language, general attitude and friendliness, or general empathy for the research subject are some factors that can contribute to the perception of coercion.

The aspect of voluntariness is absolute concerning informed consent in the same way that informed consent is absolute to the conduct of ethical research. Consequently it is reasonable to ask whether soldiers can ever provide true voluntary consent. The aspect of coercion is problematic in that an element of coercion tends to exist in research on a sliding scale. That is to say that some element of incen-

tive exists for subjects to participate in research. At some juncture the potential exists to cross the line from benefits and appropriate incentives to deception and coercion. If this aspect of "mitigated coercion" associated with medical research cannot be justified, then the use of soldiers in biomedical research is unethical.

### Is It Ethical to Conduct Research on Soldiers?

There are several issues at stake in what amounts to the fundamental question of this section. First, and perhaps foremost, is the issue of the ethical status of soldiers. When a person joins the military, the individual incurs unique obligations to the country and to other service members. These obligations cause a shift in the ranking of usually applicable ethical priorities. By joining the military, individuals implicitly agree to subordinate their autonomy for the sake of accomplishing the military mission. Service members also agree, implicitly, to risk personal injury or loss of life if need be in compliance with lawful orders of their superiors. This implicit consent applies not only in direct warfare but in preparations for war as well. Nonetheless, even though service members voluntarily allow themselves to be treated as a means in some instances, the military has an obligation to protect the interests and welfare of soldiers consistent with accomplishing the military mission. The extent to which this reciprocal relationship functions varies in times of peace and war, and the willingness to protect the autonomy of soldiers is mitigated in direct proportion to the perceived threat to national interests.

Although service members subordinate autonomy relative to accomplishing a wartime mission, this does not mean that individual autonomy should be compromised regarding medical research—even medical research that has direct impact on soldiers and the military mission. With regard to medical research, soldiers are still entitled to full autonomy and due the requisite consideration regarding their use in research as that provided to civilians. Consequently, the DoD policy for the conduct and review of human subjects research, which applies to all elements of the DoD and its contractors and grantees, "requires that the fundamental rights, welfare, and dignity of human subjects in DoD-supported research be protected to the maximum extent possible, and establishes this as a responsibility of the military chain of command."<sup>38(p9)</sup>

The Department of Defense adheres to all protections established by the federal government to

include: Department of Defense 32 CFR 219; Department of Health and Human Services 45 CFR 46; the Food and Drug Administration 21 CFR 50 and 56; and Department of Defense 10 USC 980, which requires: (a) the informed consent of the subject in advance; or (b) in the case of research intended to be beneficial to the subject, the informed consent of the subject or legal representative of the subject is obtained in advance. In essence, if an individual cannot give his or her own consent, investigators cannot enroll the person into a nontherapeutic (ie, of no benefit to the subject) study. Quite simply, the answer is “no” to the question “Are there ethical exceptions for military medical research?” concerning the corpus of historical and contemporary guidelines of medical research (levels of risk, voluntariness, informed consent).

As straightforward as this analysis seems to be, given the DoD’s own stated policy, there is still considerable concern over the application of these standards particularly in the area of informed consent. There are those who may argue that given the coercive nature of the military, soldiers are incapable of providing voluntary consent in the purest sense of the term. If this is the case, and unless there are justifiable exceptions to the ethical criteria for military medical research, then it would be unethical to use soldiers as research subjects. Is it necessarily true that simply because the military is inherently coercive that soldiers lose their autonomy and hence the ability to provide voluntary informed consent?

First, it is necessary to understand that soldiers have the desire to participate in military biomedical research. In fact, some soldiers volunteer to be part of a unique program designated specifically for use as research volunteers.<sup>39</sup> These soldiers are recruited directly from their advanced individual training programs for the sole purpose of volunteering for various biomedical research protocols. Even though these soldiers need never volunteer for a study during their tour of duty with the Military Research Volunteer Program, their mere participation makes them vulnerable to exploitation and the military needs to guard against the potential for abuse. Nonetheless, many soldiers do volunteer by choice for a variety of studies based on the written protocol that describes the research methodology and possible side effects of the study. More importantly, these soldiers may withdraw from any study, at any time, without fear of reprisal from their superiors or the investigators.

For many of these soldiers, participating in medical research is a matter of pride and the self-satis-

faction of knowing they are making a unique contribution to the welfare of other soldiers. Many see their efforts as a unique sacrifice and service to their country, and these soldiers view their participation as voluntary. The military maintains a database of the names of all its test subjects participating in greater-than-minimal-risk studies for 75 years. The requirements of the protocol approval process for DoD biomedical research preserves the key aspects of autonomy and informed consent in times of peace and war. Consequently it appears that these individuals voluntarily concede their autonomy by virtue of being in the military, that such concession of autonomy is justifiable, and the spirit as well as the intent of the informed consent process is not compromised.

### **Practicality and American Moral Ideals**

The voluntary consent of the human subject is absolutely essential. This means that the person involved should have legal capacity to give consent; should be so situated as to be able to exercise the free power of choice, without the intervention of any element of force, fraud, deceit, duress, overreaching, or other ulterior form of constraint or coercion; and should have sufficient knowledge and comprehension of the elements of the subject matter involved as to enable him to make an understanding and enlightened decision....The duty and responsibility for ascertaining the quality of the consent rests upon each individual who initiates, directs or engages in the experiment. It is a personal duty and responsibility which may not be delegated to another with impunity.<sup>40(Art1)</sup>

The Nuremberg Code makes no distinction between peacetime and the exigencies of war regarding the requirement for informed consent of an individual prior to participating in research. This point is particularly troubling given the findings of the Advisory Committee on Human Radiation Experiments,<sup>41</sup> a panel created by the Clinton Administration to investigate reports of unethical and possibly life-threatening experimentation on human subjects. The Committee discovered that tens of thousands of service members were exposed to radiation in research without their consent.

The examples of the radiation research<sup>42</sup> and the infamous LSD<sup>43</sup> studies occurred prior to the rigorous screening and protocol review process of today. Moral hindsight allows the privilege of criticizing and, when necessary, condemning immoral practices of the past. Nonetheless, the radiation experiments and LSD studies conducted on military personnel without their informed consent did occur

after the adoption of the Nuremberg Code of 1947 and the top-secret rules adopted by the DoD in 1953,<sup>44</sup> which required researchers to inform human subjects of health risks associated with radioactive, chemical, and biological warfare experiments.<sup>45</sup> There is no ambiguity in the requirements of the Nuremberg Code regarding voluntary consent. Consequently, the researchers involved in these protocols failed in their duties and responsibilities owed to the victims of their research.

As disturbing as these examples appear regarding the outright disregard for the rules and guidelines of human research, they are clearly distinguishable from the more perplexing problem of trying to draw distinctions between medical research and medical practice and the need to determine whether military personnel have been treated as uninformed research subjects. The advances in medical technology and therapeutic treatments have blurred the distinction between therapy and research. This fuzzy line of demarcation applies in the military and has potential for ethical conflict as one seeks to protect the rights of military personnel from unethical practices regarding their use as human subjects.

### The Persian Gulf War Experience

The history of research with soldiers demonstrates a prevailing attitude that when a threat to the nation's security appears imminent (as was the case of nuclear war in the 1950s and the fear of lysergic acid diethylamide [LSD] use on American personnel in the 1960s), the requirements of informed consent and review approval represent impediments to national security—the urgency of the situation demands the conduct of these studies. Such a rationale has been used to justify egregious abuses of autonomy and respect for human welfare in clear cases of research when such a defense is unjustifiable.

The Persian Gulf War added a new dimension to the issue of protecting military members not only from abuses of research mentioned previously but from the imminent prospect of facing chemical and biological weapons. Chemical weapons comprise a broad spectrum of devices that include lethal agents (nerve, blood, blister, and phosgene), incapacitating agents (so-called tear gas agents), smoke, and herbicides. Nerve agents, a particular threat from the Iraqi arsenal, attack a person through the skin inhibiting the action of the enzyme cholinesterase. Inhibition of cholinesterase causes violent muscle contraction in the victim with death resulting from

asphyxiation. Additionally, Iraq was known to have an arsenal of biological weapons that work by spreading disease. Anthrax and botulism are typical biological agents that can be delivered on the battlefield by bombs, missiles, and rockets.

Prior to commencing Operation Desert Storm (ODS), the combat phase of the Persian Gulf War, the DoD sought and obtained a one-time waiver of informed consent requirements (known as Rule 23[d]) for the use of investigational drugs and vaccines on American forces serving in the Persian Gulf. The Food and Drug Administration (FDA) defines investigational drugs as those not approved for use by the general public. Until 1987, the use of investigational agents was permitted solely for research purposes. The FDA modified this rule approving the use of investigational agents to treat life-threatening conditions where no comparable drug or therapy is available. Changes notwithstanding, the FDA requires physicians to obtain a patient's informed consent before using an investigational drug for therapy.<sup>46</sup> In persuading the FDA to waive their requirements on the use of investigational agents, the DoD argued that in the exigencies of war obtaining soldiers' informed consent was "not feasible."<sup>47</sup> This case study highlights many issues, the least of which includes where to draw the line between medical practice and medical research. The FDA approval of the informed consent waiver rekindled discussion of how to make a distinction between therapy and research but also raised the specter of the Nazi doctors—namely, did the DoD make guinea pigs out of US military personnel serving in the Persian Gulf War?<sup>48–52</sup>

There are two basic positions regarding the use of investigational drugs and the informed consent waiver approval as it applied to military members during the Persian Gulf War. The major point of contention hinges on whether the use of investigational agents by the military in this one-time occurrence constitutes medical research or medical treatment. Presumably if the intended use is for research, the waiver is unethical as opposed to medical treatment where the exigencies of war provide justification to waiving consent with the purpose of protecting soldiers from chemical and biological weapons.

### The Research Point of View

The first position contends that the military intent for using investigational agents was to conduct medical research. Consequently, the Nuremberg Code would prohibit the use of these drugs on sol-

diers who did not provide informed consent. More recently, the Department of Defense Authorization Act (1985) also prohibits the military from conducting research on humans unless it has obtained the informed consent of the subject in advance. This prohibition even extends to research intended to be beneficial to the subject. Consequently, those who hold this position view the waiver of informed consent as patently unethical. A moderated position of this view concedes the intent of the military as one of medical practice but insists that in the use of investigational agents, even when there is evidence that a derived benefit from their use exists, such a benefit does not automatically transform what is experimental into therapy. If this were the case, then the informed consent process could simply be circumvented by redefining these activities. In either case, the argument upholds the absolute of informed consent in research activities. Advocates of this view believe the use of investigational agents constitutes research. Therefore, the use of these agents with a waiver of informed consent is unethical.

### *The Practice Point of View*

Those who condone the waiver of informed consent articulate a position that argues the use of investigational agents as a preventive treatment against biological and chemical weapons is not medical research. The DoD was attempting to use these agents in what was considered an immediate “life-threatening” situation to protect the lives of military members from the effects of biological and chemical weapons. This use is within the scope of the US Food and Drug Administration’s (FDA) regulation on investigational drugs.<sup>53</sup> The principle of preventing unnecessary harm (nonmaleficence) to military members overrides all other principles in this view, even the prerogative of soldiers to make their own decisions regarding medical treatment (autonomy). Because the use of these agents was intended as a preventive therapy and not research, and because the military already has precedent to impose medical therapies on military members to ensure mission accomplishment, the action regarding the use of investigational agents in this context was not viewed as unethical by the FDA or DoD leadership.

### *The Distinction Between Research and Practice*

The Persian Gulf War example provided the opportunity to examine the conceptual distinction between medical research and medical practice. *The Belmont Report* addresses this issue and is the start-

ing point for this discussion. According to the *Report*, the term practice refers

to interventions that are designed solely to enhance the well-being of an individual patient or client and that have a reasonable expectation of success. The purpose of medical or behavioral practice is to provide diagnosis, preventive treatment or therapy to particular individuals.<sup>8(PartA)</sup>

The term research, by contrast,

designates an activity designed to test an hypothesis, permit conclusions to be drawn, and thereby to develop or contribute to generalizable knowledge (expressed, for example, in theories, principles, and statements of relationships).<sup>8(PartA)</sup>

The *Report* goes on to further clarify departures by physicians from standard or accepted practice, but such departures from standard practice do not, of themselves, constitute research.

The fact that a procedure is “experimental,” in the sense of new, untested or different, does not automatically place it in the category of research.<sup>8(PartA)</sup>

The use of investigational agents by the DoD for preventive treatment against biological and chemical warfare agents was new and untested. One of the agents, pyridostigmine bromide (PB), is approved by the FDA for therapeutic use for a different purpose than as a pretreatment chemical agent antidote. Consequently, the DoD was compelled by law to file a new investigational drug application for an already approved FDA drug. FDA approval requires safety and efficacy testing in both animals and humans. Safety and efficacy data exist in animal studies for PB use as a chemical agent pretreatment. Only safety data exist for this use in humans because efficacy testing would require exposing human subjects to a nerve agent. This activity is unethical under existing human use review board standards. Therefore, the FDA cannot grant complete licensure for the use of this drug as a chemical nerve agent pretreatment.

At this juncture the issue becomes how to gain approval to use these investigational agents even though they lack full approval status. Having conducted risk-benefit analysis, given the best intelligence data regarding the Iraqi intent to use biological and chemical weapons, and lacking any current pretreatment standard of care for exposure to nerve agents, soldiers faced a greater risk from these weapons unprotected than they did from receiving



the investigational drugs. Now the issue shifts to the appropriateness of requiring soldiers to take drugs known to be safe without the option of informed consent. The military could have allowed soldiers to take these drugs voluntarily. The DoD argued, however, that to allow soldiers to refuse to take the drugs would needlessly risk their lives and the lives of their protected compatriots:

Our planning for Desert Shield contingencies has convinced us that another circumstance should be recognized in the FDA regulation in which it would be consistent with the statute and ethically appropriate for medical professionals to "deem it not feasible" to obtain informed consent of the patient—that circumstance being the existence of military combat exigencies, coupled with a determination that the use of the product is in the best interest of the individual. By the term "military combat exigencies," we mean military combat (actual or threatened) circumstances in which the health of the individual, the safety of other personnel and the accomplishment of the military mission require that a particular treatment be provided to a specified group of military personnel, without regard to what might be any individual's personal preference for no treatment or for some alternative treatment.<sup>47</sup>

### The Dilemma of Choice

Earlier in this discussion the conclusion was drawn that there are no exceptions to the right of informed consent to participate in research. One can argue that even the use of a new, unproved therapy should not be imposed on soldiers without their consent. Can the Persian Gulf War example—the use of unproved therapy (given it is consistent with the criteria of *The Belmont Report*)—provide a qualified exception in the context of actual or threatened combat?

The basic responsibility of the FDA is to protect the American public (to include military members) from unsafe and ineffective drugs. A problem arises when a drug passes safety testing but criteria for testing efficacy are beyond the bounds of ethical conduct. Which is more harmful: (a) to withhold the potential benefit or (b) risk facing the life-threatening situation without protection? One might readily answer that no protection produces a greater risk. Does that mean that the use of the drug is required or should soldiers be allowed to choose voluntarily? The answer to this question depends upon whether military members have a duty to subordinate individual self-interest for the good of the many. The success of a military mission depends upon unit cohesion, trust, and interdependence of unit members. Military units spend countless hours

training and preparing for their wartime missions. The success of small unit tactics depends upon unit members being able to perform their assigned tasks when called upon to do so. Unprotected soldiers suffering injury from chemical and biological agents become liabilities to the welfare of their unit members when they are unable to perform their assigned role. Ultimately, the success of the overall mission is potentially jeopardized. If there is a derived benefit from taking these investigational agents and some members fail to accept this benefit, the negative effects of biological and chemical weapons not only impacts on those members not protected but degrades the capability of the entire unit and ultimately the welfare of the other unit members. Although some may argue that requiring military personnel to sacrifice their autonomy is morally indefensible, such a sacrifice has justification based on the principle of duty.

### Summary

The protection of military personnel from the inherent risks of medical research and from innovative, new, and unproved practice is of paramount importance. Those who serve in defense of their country have a heightened sense of duty to their comrades-in-arms and to the nation. Those who exercise command authority over military personnel have an obligation to protect the rights, dignity, and autonomy of their subordinates to the extent possible without jeopardizing the military mission or the welfare of military personnel as a whole.

There exists an ethical framework and criteria by which medical research can be conducted that preserves the ethical status of military members. Military personnel have the prerogative to volunteer for research and to deny them this privilege can potentially violate their personal autonomy. The experience in the Persian Gulf War and Rule 23(d) illustrates the difficulty of making choices that satisfy the demands of competing ethical principles and the potential for blurring the distinction between research and therapy. Significant to the Persian Gulf War is the need to acknowledge the risk associated with the use of unproved therapies. When the DoD finds it necessary to seek another waiver for the use of investigational agents in times of war, careful and comprehensive study of military members who take these agents is a moral imperative. The mysteries of Gulf War illnesses suggest that the military should do a better job of obtaining information regarding side effects and illness that may stem from the agents themselves or effects of the agents com-

bined with unique environmental exposures and stress of the battlefield. Simply stated, the military needs to devise a more effective method for recording and sorting medical information on the battlefield, particularly when it requires waivers from standard legal and ethical practices in medical research or therapy. This point suggests that if exceptions to es-

tablished practices to informed consent exist, and military personnel later suffer from medical conditions linked to the use of investigational agents administered without informed consent, then they ought to receive just compensation and the record trail to support such claims ought to be available, exigencies of combat notwithstanding.

## ETHICS AND THE ISSUE OF ANIMAL EXPERIMENTATION

More than the other topics of this chapter, the use of animals in research is as much a social and political question as it is a philosophical one. With few exceptions the voices in this debate are volatile and intractable, expressing virtually no hope of reaching common ground or compromise. Consequently it is imperative to examine the arguments with the intent of gaining understanding of the ethical stakes from both sides of this debate.

There exists the presumption that most people want to “do the right thing” regarding actions to fellow humans and nonhuman animals. With this presumption comes the recognition of the value of biomedical research in advancing cures, treatments, and prophylaxis enhancing quality of life (even though some opposed to animal research deny such value). Value is ascribed to medical research because of the good that it adds to human life. Advocates of animal research support its practice because they view the value of human life greater than nonhuman animal life. One can hold this position without denying that nonhuman animal life has value, only that human life has greater value. As a society, however, the United States is becoming more ambivalent over the use of animals to gain medical advances at the expense of nonhuman animals, using lower animal life models or computer modeling as alternatives. The source of this ambivalence may stem from emotionally charged rhetoric, or the desire to be more sensitive to creatures who can experience pain, suffering, and lost preferences, or possibly a paradigm shift of viewing nature as a cosmic unity. This ambivalence might also stem from the realization that a concept of speciesism is valid in regard to the treatment of nonhuman animals, pricking moral consciousness beyond caring about the welfare of animals to affording them rights.

### The Moral Status of Animals

The position one chooses to embrace regarding the use of animals in research derives from whether or not one has a fundamental belief in the moral

equality and rights of animals.<sup>54,55</sup> The moral equality position advocates rights in the sense of human rights where it follows that the use of animals by humans constitutes a moral wrong. The logical starting point to determine whether it is ethical to use animals in research begins by determining whether it is ethical for humans to use animals for any purpose. Many critics of animal research assert the right of nonhuman animals to be treated as ends in themselves. If one holds the position that it is wrong for humans to use animals for any purpose then there is no moral distinction to make between justifiable and unjustifiable use of nonhuman animals in research. There is no middle ground, no basis for mediation, no common principle by which antagonists in this debate can reach consensus. Logical consistency demands that using animals for food, clothing, sport, entertainment, and education also violates the so-called rights of animals. If, however, one concedes that not all uses of animals for human needs are unethical, the debate narrows as to why using animals in research is morally wrong but other uses are morally permissible.

### Animal Suffering vs the Primacy of Human Life

One might easily suggest, as many do, that the main problem with using animals in research is the suffering inflicted upon them.<sup>56</sup> Advocates for animal rights have framed the antivivisection debate as one depicting all animal research as cruel, unnecessary, and unscientific as opposed to distinguishing between the humane and inhumane use of animals. Hence the fundamental value argument in this context places the research community in a position of upholding the primacy of human life over animal life. If animals have moral equality with humans then one cannot help but question, as do many who favor vivisection, as to the matter of priority when defending the rights of animals on the issue of suffering. For example, the use of animals for food and clothing probably exceeds biomedical research by higher than a thousand-fold. Further-

more, the majority of animals used in research are mice and rats. This dichotomy or, less charitably, logical contradiction has led many people to conclude that animal research is merely a target of opportunity—an issue easily isolated from mainstream animal use, namely hunting, domestic pets, and the food and clothing industries.

It is not possible to conclude, however, from the preceding discussion that the use of animals in research and related suffering they might incur, is automatically justifiable simply because their use for other purposes is condoned. Many animals have “expressed preferences” and the ability to pursue those preferences. Consequently animals should not be treated as mere objects. Animal lives count for something as does their ability to feel pain and to suffer. On balance one has to consider whether the pain an animal might experience in research is justified given the magnitude of benefit derived. Hence one returns to the question at hand: Are humans ethically justified in the use of animals either in general or specific instances, and if so, what ethical obligations apply to researchers who use nonhuman animals in their research? Surprisingly, there appears to be no consensus among philosophers in applying ethical theories to answer these questions. There is indication, however, that even arguments for complete abolition of animal research do not completely exclude exceptions for valuing human life as greater than nonhuman animal life.<sup>57</sup>

### Application of Ethical Theory

The major ethical theories are versions of (a) teleological or consequentialist views—the basic theory of this type is generally known as classic utilitarianism or (b) deontological views focusing on the inherent rightness or wrongness of an action irrespective of the good (bad) consequences that result from doing an action. Closely akin to the deontological view is the rights-based account of moral obligation that emphasizes the notion of respect and justice that reflect upon a particular moral judgment as right or wrong. Finally the contractarian view espouses ethical obligations forged from mutual agreement of consenting parties who function as moral agents.

The animal rights’ proponent fundamentally opposes the use of animals by humans based on the belief that animals have inherent value. If animals have inherent value (moral equality), then regardless of the good humans can derive from their use, it is morally impermissible to violate the rights of

animals that derive from their inherent moral worth. This argument requires a conceptual definition of inherent value. Antivivisectionists conceive (in minimal properties) sentience, purposiveness, and the capacity to feel pain to be sufficient to afford animals moral status. One criticism of these criteria is that they are not sufficient. The necessary trait to confer moral status on a living entity is moral autonomy—the capacity to make moral choices. Because this trait is lacking in nonhuman animals they deserve less or no moral consideration. One attacks this criticism by pointing out that humans lack, at various times, the capacity to function as moral agents (ie, a baby; a senile, demented, or retarded person; a comatose patient) yet their moral value is still regarded. Likewise sentient animals should be afforded equal consideration and their well-being should not be disrupted.<sup>58</sup>

If this argument is sound (if its premises are true and the conclusion follows from the premises), then humans incur fundamental duties regarding their actions toward animals. These duties derive from the respect or moral concern they are now obligated to afford to animals but are in conflict with the consequentialist (utilitarian) view. A consequentialist may well agree with the concept that animals have moral worth but reject the absolute view of violating that worth when doing so maximizes the greatest benefit balanced against the harm to an animal. Most researchers are likely to be utilitarian in their view of using animals in research. Even Peter Singer, viewed by many as the founder of the animal rights’ movement, concedes the use of animals as research subjects could be justified if it produced more utility than disutility.<sup>54</sup> His major claim is simply that it is wrong to give less consideration to the suffering of an animal than one would give to the similar suffering of a human being. This claim does not support the abolition of animal research. It only compels the researcher to demonstrate (from a utilitarian calculation) that the good to be derived from the animal’s suffering outweighs the evil of the suffering. If one accepts the aggregate benefit of using animals for medical cures, especially when a particular protocol involves no pain to the animals, there can be little left to worry about in the utilitarian calculation. One criticism of this view is that the perceived benefits of an experiment are in doubt until after the experiment has run its course. If there is no benefit, then only retrospectively can it be concluded that the animal’s loss produced no aggregate benefit. This view still grants some moral status to animals and places an obligation on researchers to develop

well-designed protocols using the lowest form of animal model suitable to validate the scientific hypothesis. Consequently one considers the welfare of animals without having to take the extreme position of an animal rights' advocate.

### A Definitive Rights Position

Regan presents a clearly articulated position in *The Case for Animal Rights*.<sup>59</sup> Regan's position revolves around a fundamental right—the right not to be harmed on the grounds that doing so benefits others. This position is in distinct contrast to the classic utilitarian. Harm in Regan's view is the loss of the capacity to form and satisfy desires. For any living thing that can form and satisfy desires, the ultimate harm is death—the complete loss of one's ability to form and satisfy those desires. As to the issue of delineating a list of which animals are capable of forming desires, Regan is reluctant to "draw lines." He is quite satisfied that at least mammals and birds have this desire but will admit that humans have this capacity to a greater degree than other mammals and birds. Consequently, Regan postulates that if four humans and a dog are in a lifeboat that can support only four occupants, none of the humans should be harmed because each stands to lose more than the dog. Regan calls this scenario the application of the "worse-off" principle. Because a human being's capacity to form and satisfy desires is greater than that of any nonhuman animal, a human stands to lose more in death than the dog. Harming any of the humans is avoided because they stand to lose more than the dog. Peter Singer believes that this conclusion demonstrates an inconsistency in Regan's position.<sup>54</sup>

Regan also formulates a rule of action called the "miniride" principle. In this view, there is an attempt to minimize the overriding of an individual's rights. In this way one is not using a utilitarian view of aggregate happiness but rather is focusing on the individual. Thus, in Regan's mind, utilitarian reasoning is avoided. The problem is that in applying the miniride principle the same conclusions are derived as when the principle of utility is applied. Regan simply wants to emphasize focusing on the individual and minimizing any overriding of the animal's rights as opposed to focusing the aggregate happiness produced by the principle of utility.

Critics suggest that Regan, in his formulation of these moral principles, fails to establish standards that support the total abolition of animal research.<sup>60</sup> Hypothetically, if it were known with certainty that an experiment could produce a vaccine that would

save human lives, then it would be justified in either of Regan's principles to harm the animal, even to the point of death, to produce the vaccine. Therefore, even someone like Regan, a complete abolitionist of animal research, who advocates a moral rights position, would have to concede that at least some medical research with animals is morally permissible (justified).

### Summary

What is interesting about the preceding comparison of the utilitarian and rights positions is that in either case, whether one accepts the moral equality claim or subscribes to the view that humans have greater capacity to satisfy desires, both views justify at least some medical research. Consequently the question then becomes a matter of deciding which experiments are justifiable and which are not. This question becomes more a matter of oversight and regulation than the outright prohibition of animal research. This debate has increased the burden for scientists to justify their use of animals but in so doing has benefited the animals and contributed to better science.

In considering the proponent and opponent positions of animal research the views can be summarized in the context of competing ethical theories and interests. From both a teleological and deontological perspective there are reasonable arguments to justify the use of animals in research. Both perspectives provide ethical principles by which to consider any justification for animal research: comfort, well-being, pleasure, sentience, and purposiveness. Although researchers may be able to move away from animal use with emerging technology, at least for the present their use is still required. Hence the question is less about the ethics of animal research and more about the ethics in animal research. Researchers should use animals with good reason. Protocols must adhere to sound experimental design and subscribe to the ethical and legal codes of conduct relevant to the care and use of animals in research. Most significantly, researchers must take great strides to reduce the pain and suffering inflicted on animals in the conduct of research. Finally, as a society there ought to be a commitment to developing alternatives to animal use when such alternatives will produce credible scientific results.

Military research may present a problem regarding the development of alternatives to animal research. One example is the need to conduct physiologic studies regarding methods to combat biological and chemical weapons. Data obtained from ani-



mal studies indicated the safety and efficacy of the nerve agent antidote used by the US military during the Persian Gulf War. Given that the goals of military biomedical research are directly linked to enhancing the well-being and reducing the suffering of military personnel, most Americans would accept the use of animals in this research as ethically justifiable. Consequently, the issue narrows to defining how much animal use is justified in serving the aims of military biomedical research. To this end, military researchers face the same ethical concerns as civilian researchers in mitigating animal suffering for the benefits derived to improve the human condition. Ethical analysis provides guidelines to govern animal care committees for the humane care and use of laboratory animals. This same

analysis does not support a complete prohibition of animal research. Application of ethical parameters might well suggest that animal use in military biomedical research has greater justification than civilian research as military research consistently aims at reducing significant human suffering and death produced by the weapons of modern warfare. In many instances, animal studies are the only way to verify the harm that exists to military personnel from various weapons, but animal studies are also necessary to study the effects of American weapon systems and military material on American personnel. To this end, military biomedical research needs to consider the ethical requirements of conducting good science while considering the humane treatment and welfare of laboratory animals.

### **MILITARY WOMEN'S RESEARCH PROGRAM**

A national agenda is forming on women's health that focuses on the previous lack of female subjects in research; the lack of funding for research of women-unique diseases; the need to improve access to healthcare for women; and the desire to improve preventive care for women. The problem of specific data gaps related to women's health issues has already received national attention. The General Accounting Office issued a report in June 1990 demonstrating that despite federal policy dating back to 1986, women continue to be excluded in biomedical research populations.<sup>61</sup> As recently as June 1994, the National Institutes of Health (NIH) issued new guidelines to enhance medical research standards to include more women and minorities in research studies. Not only are women and minorities to be included but their subpopulations are to be noted and numbered.<sup>62,63</sup>

The efforts to overcome data gaps created by previous policies have significant relevance for military women. The US military deployed nearly 40,000 women to Southwest Asia during the Persian Gulf War. Throughout this deployment significant female soldier health and performance issues surfaced in the areas of occupational and environmental health hazards, psychosocial and posttraumatic stress illness, clinical safety and efficacy of licensed and investigational pharmaceutical and biological products, and preventive health and sustained duty performance. Similar to the civilian medical community, there are scant research studies of military relevance that focus on women-unique health problems and military women are excluded disproportionately to their male counterparts as research subjects.

In the 1990s several programs were instituted to redress this problem.<sup>64,65</sup> In 1994, the Congress established the Defense Women's Health Research Program (DWHRP) to "address the critical health and performance issues impacting women in the military."<sup>65</sup> There were two main components of the research programs: (1) those utilizing institutions that are part of an agency or activity of the DoD or other US military service department (the intramural program) or civilian institutions that would collaborate with military institutions; and (2) those utilizing agencies outside the government, both for profit and nonprofit, both public and private (the extramural program).

The intramural research program solicited research proposals in the following four areas: (1) major factors affecting the health and work performance of military women; (2) psychological and health issues resulting from the integration of women into a hierarchical male environment or related women and men living and working in close quarters; (3) health promotion and disease prevention; and (4) access to delivery of healthcare. The extramural program solicited research proposals in four areas related to the intramural research: (1) operational effectiveness for mission accomplishment; (2) health promotion and disease prevention; (3) psychological health and well-being; and (4) access to and delivery of healthcare. By fiscal year 1995 a total of 66 research programs had been funded for the intramural and extramural programs. Similar levels of research activity will likely continue well into the future to redress the prior lack of research into issues pertaining to the health of women serving in the military.

## THE PROBLEM OF EXCLUSION

Various articles have been written exploring the problem of exclusion.<sup>66,67</sup> The fundamental issue, having already identified probable causes for a gender bias in healthcare, is to recognize the ethical imperative for correcting recognized deficiencies. One aspect of ethical analysis is to determine whether there exists sufficient ethical justification for a particular practice, namely an exclusion policy toward women in medical research and treatment protocols.

Given the basis for biomedical research to obtain generalizable data for improving health and treatment, one must ask whether exclusion practices violate the principle of beneficence. The application of beneficence suggests that research practices should maximize benefit and minimize harm. To violate this principle the practice of exclusion must cause harm or diminish expected benefits. Applying this principle to the practice of excluding women from research protocols, several harms are evident. First, the physiological differences between men and women make it inappropriate to simply generalize findings from research conducted on male subjects. For instance, a variety of male-only studies for heart disease, cholesterol, and asthma medication led to treatment alternatives actually detrimental to women's health. Even though one can argue the need for uncomplicated data from a homogeneous test population, this scientific requirement (or expediency perhaps) does not justify conducting studies on all male groups. During the Persian Gulf War, female soldiers received the same dosage rates of pyridostigmine bromide, a nerve agent pretreatment antidote, as their male colleagues. Testimony during the Senate hearings on illnesses associated with service in the Persian Gulf suggested physiological differences in men and women could affect safe dosage levels for women causing various side-effects and a possible connection to unexplained illnesses in women who had served in the Persian Gulf War. Consequently, studies conducted without female test subjects may lack the very scientific merit the study was initially designed to support.

These obvious harms aside for the moment, one explanation offered in the past to defend exclusion practices is that such practices actually prevent harm to women and other minorities simply because they are minorities. The early history of biomedical research in this country is replete with the exploitation of disadvantaged groups as research participants. The infamous Tuskegee syphilis study stands as a permanent fixture to these unethical abuses. Consequently, exclusion practices might be

offered as a way of protecting minorities from these past practices of exploitation. Thus the principle of beneficence is upheld in the sense that excluding minorities from studies protects them from the possible harm of exploitation. This explanation fails to consider that the harm of exploitation is a product of failing to adequately inform the research subject of the inherent risks to research participation. Informed consent is supposed to mitigate against exploitation. The paternalism of "protecting" minorities is a subtle form of unjust discrimination and applies protectively only in the case of nonclinical investigations. In clinical investigations, exclusion and paternalism possibly deny minorities the benefits of the research. Hence, the real issue is not a matter of "protecting" minorities from harm but allowing them to participate as equals in the research enterprise with full knowledge of the risks so they may also derive the benefits of the research outcomes. Therefore, a practice of exclusion lacks ethical justification in relationship to the principle of beneficence.

One must not judge too harshly the failure of the position that exclusion protects minorities from exploitation in the research process. The backlash of Tuskegee and similar studies not only led to a paternalistic view of protecting minorities but also caused a reluctance on the part of minority groups to participate in the scientific enterprise. Both of these trends fail to uphold the principle of beneficence. Additionally, the exclusion practice in seeking to do good (granted a charitable interpretation) violates the principle of justice. Current ethical practices in research, based on the principle of justice, require a fair and equitable distribution of burdens and benefits—giving people what they deserve (benefits) mitigated against the amount of their involvement in the process (risk-taking). An exclusion practice cuts two ways in violating the principle of justice. First, medical research is subsidized with tax dollars. If a segment of the population financially supports the research enterprise and then cannot benefit from its outcomes, such a practice violates the justice principle. Likewise, if a segment of the population benefits from research but does not accept the associated risks, be they physical or financial, this practice also violates the principle of justice. Consequently the requirement to expand protocols to include women satisfies both aspects of the justice principle.

Another consideration used to justify exclusion of women from studies is the possibility of a woman

research participant getting pregnant during the study resulting in harm to the unborn child (commonly referred to as unforeseeable teratogenic risk). The principle of nonmaleficence (avoid causing harm) is the ethical principle oftentimes used in this defense. Military research protocols and the accompanying informed consent require special counseling for fertile women volunteers regarding the hazards of birth defects and miscarriage should pregnancy occur in the course of the study. Researchers funded on DoD dollars must inform women of the need to use birth control during the study. Pregnancy is often used as an exclusion criteria to withdraw women subjects from a study. Given these conditions, complete exclusion from the onset of a study may be too general and broad a practice. Even though precaution is clearly warranted to avoid potential harm to an unborn child (and one can debate whether enforced contraceptive use is too strong a precaution), a real harm is created by simply excluding women with the ability of conceiving children. The key to mitigating risk with fertile women subjects is to determine the degree of risk each protocol actually presents to a developing child—the greater the risk, the more exclusive the selection criteria could be for fertile women. Still this parameter need not mean total exclusion. Not all fertile women are sexually active nor would be necessarily so while participating in a study.

Past research practices of exclusion should not be construed as intentionally seeking to discriminate against women. The lack of enlightened sensitivity and thinking in this area is more likely attributed to convenience, saving money, simplifying the design of protocols, and simplifying logistical requirements to accommodate both sexes during the conduct of a study. The fact remains that there exists a gender bias in selecting research subjects and this bias is harmful to the welfare of women. Value judgments have been made in American society about practices that cause harm—they are unethical. Hence because exclusion practices cause harm, or at least have been demonstrated to cause harm, exclusion practices are unethical.

## CONCLUSION

The ultimate mission of military medical research is to provide preventive and therapeutic products for the welfare of the soldier. To this end military medical research must remain committed both in a professional sense and an ethical one. Military medical research is a noble enterprise with a long history of significant contributions to healthcare,

Much is being done to correct the previous gender bias in research selection. The military medical research programs are expanding to cover women-unique problems associated with military duty and job performance. Most notably perhaps was the creation of a DoD breast cancer research program in 1993. Congress directed the Army to execute a breast cancer research program based upon a number of factors. The major effort came from a highly visible lobbying effort by the National Breast Cancer Coalition, a grass roots advocacy effort to eradicate breast cancer, seeking congressional funding for the breast cancer program at the National Cancer Institute (NCI). The US Congress responded by directing \$210 million to the US Army Medical Research and Development Command (which later became the US Army Medical Research and Materiel Command) to create a breast cancer program.<sup>68</sup> The overall objective of this funding is to promote research directed toward reducing the incidence of breast cancer, increasing survival rates, and improving the quality of life of those diagnosed with the disease. This program extends beyond the traditional military medical research mission and is indicative of the strides being taken to correct past practices. Still the lesson to learn is that it is necessary to stay vigilant to uncover other biases in medical research and healthcare as yet undetected.

Finally, now that the research community is expanding its horizon to include women-unique studies, women must be willing to become active participants in the research process. What must be guarded against in the developing process of a women's health agenda, however, is that whatever biological and physiological differences might be discovered do not become a means to perpetuate unjust discriminatory practices in employment and career paths. This is perhaps unlikely, but a word of caution is prudent when the study of environmental, physiological, and nutritional aspects of women's health specifically related to military duty is begun. Such differences, by themselves, ought not be used to exclude women from such service. Instead, ways to solve these various problems should be explored.

not only for soldiers but for the greater society as well. The US Army Medical Research and Materiel Command has been managing and administering targeted appropriations to the Department of Defense from Congressional direction since 1992. Appropriations totaling in excess of \$1.1 billion for breast cancer, women's health issues, and other

specified programs highlight key aspects of military medical research with a clear vision committed to ethical aims of improving quality of life. These programs are managed by skilled, multidisciplinary teams of military and civilian scientists and clinicians. The National Academy of Sciences and the Institute of Medicine have participated in program reviews and development seeking to substantiate the ethical and scientific credibility of these programs. These programs received strict review of Congressional oversight committees and are committed to public accountability in the investment of funds to address the research needs of targeted diseases.

Unlike the past, stakeholder participation is at the very heart of the implementation strategy of these research programs. Open communication

among research participants, scientists from various disciplines, consumer advocate groups, leading government, academic, and private organizations are all partnering to ensure unique issues and gaps in medical knowledge no longer exist. Expanding the opportunities for gender specific research is only one facet of the program that lends credence to the fact that times have changed and that program development and funding target these specific gaps and remedy the failures of the past. The growth of military medical research is not only a good thing for the military but for society as a whole. The growth of ethical awareness toward the use of medical research for the benefit of society and preserving the very core of the healing professions—caring, compassion, and the relief of suffering—continues as a necessary and essential component of these research programs.

## REFERENCES

1. Moore GE. *Principia Ethica*. 2nd ed. New York: Cambridge University Press; 1993: Preface.
2. Lifton RJ. *The Nazi Doctors*. New York: Basic Books; 1986; xii.
3. Nass M. The labyrinth of biological defense. *PSR Q*. 1991;1(1):24–30.
4. Statement from the Society for Social Responsibility in Science. Quoted by: Nass M. The labyrinth of biological defense. *PSR Q*. 1991;1(1):24–30.
5. Newman S. Vaccines and BW. *Genewatch*. 1985;2(2):12.
6. Wright S. The military and the new biology. *Bull At Sci*. 1985;(May):10–25.
7. Dasey C. Medical benefits of the Biological Defense Research Program. *Polit Life Sci*. 1990;9(Aug):77–83.
8. National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. *The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research*. Available at: <http://ohrp.osophs.dhhs.gov/polasur.htm>. Accessed 16 April 2002.
9. Annas GJ, Grodin MA. *The Nazi Doctors and the Nuremberg Code: Human Rights in Human Experimentation*. New York: Oxford University Press; 1992.
10. The World Medical Association. *Regulations in Time of Armed Conflict*. Adopted by the 10th World Medical Assembly, Havana, Cuba, October 1956, edited by the 11th World Medical Assembly, Istanbul, Turkey, October 1957, and amended by the 35th World Medical Assembly, Venice, Italy, October 1983. In: *The World Medical Association Handbook of Declarations*. Ferney-Voltaire, France: The World Medical Association; 1993: section 17.50.
11. Neel S. *Medical Support of the US Army in Vietnam 1965–1970*. Washington, DC: OTSG, US Department of the Army; 1973; Chap 10.
12. Stich SP. The recombinant DNA debate. *Philos Public Aff*. 1978;7(3):187–205.
13. Cohen C. When may research be stopped? *N Engl J Med*. 1977;296(21):1203–1210.
14. Jonas H. Freedom of scientific inquiry and the public interest: The accountability of science as an agent of social action. *Hastings Cent Rep*. 1976;6(4):15–18.



15. Sinsheimer RL, Piel G. Inquiring into inquiry: Two opposing views. *Hastings Cent Rep.* 1976;6(4):18–19.
16. Sidel V. Biological weapons research and physicians: Historical and ethical analysis. *PSR Q.* 1991;1(1):24–30.
17. Frisina ME. The offensive-defensive distinction in military biological research. *Hastings Cent Rep.* 1990;20(3):19–22.
18. Wilker N, Connell N. Update on the military and biotechnology. *Genewatch.* 1987;4(4-5):1–3.
19. Geneva Convention on the Prohibition of the Development, Production, and Stockpiling of Bacteriological (Biological) and Toxin Weapons and Their Destruction, 10 April 1972. 26 UST 57, TIAS 8062.
20. Smith RJ. UN says Iraqis prepared germ weapons in Gulf War; Baghdad balked, fearing US nuclear retaliation. *Washington Post.* 26 August 1995:A1.
21. US Army Medical Research and Development Command. *Final Programmatic Environmental Impact Statement: Biological Defense Research Program* (RCS DD-M [AR] 1327). Fort Detrick, Frederick, Md: USAMRDC; April 1989. Available at: <http://mrmc-www.army.mil>. Accessed 24 June 2002.
22. Graber R. UMass anthrax research safe. *Daily Hampshire Gazette.* 21 January 1989:1.
23. Graber R. Researcher says anthrax study safe. *Daily Hampshire Gazette.* 6 March 1989:1.
24. Gately B. Anti-anthrax fight reaches selectmen. *Massachusetts Daily Collegian.* 28 March 1989:1.
25. Wilker N. BW Research on UMass-Amherst campus opposed. *Genewatch.* 1989;5(6):4.
26. Macklin R. On the ethics of not doing scientific research. *Hastings Cent Rep.* 1977;7(6):11–13.
27. Roth B. The moral arguments against military research. *Ann N Y Acad Sci.* 1989;577:21–23.
28. Dineger R. The moral arguments for military research. *Ann N Y Acad Sci.* 1989;577:10–20.
29. Sieber JE. *Planning Ethically Responsible Research: A Guide for Students and Internal Review Boards.* Newbury Park, Calif: Sage Publications; 1992.
30. Beecher HK. Ethics and clinical research. *N Engl J Med.* 1966;274(24):1354–1360.
31. Rothman DJ. The shame of medical research. *N Y Rev Books.* 2000;47(19):60–64.
32. Angell M. The ethics of clinical research in the Third World. *N Engl J Med.* 1997;338(12):847–849.
33. Varmus H, Satcher D. Ethical complexities of conducting research in developing countries. *N Engl J Med.* 1997;337(14):1003–1005.
34. Merson MD, Blanche S, Herrington D, et al. Ethics of placebo-controlled trials of zidovudine to prevent the perinatal transmission of HIV in the Third World [a series of short articles]. *N Engl J Med.* 1998;338(12):836–844.
35. Public Law 93-348, National Research Act, 12 July 1974.
36. Sugarman J, McCrory DC, Powell D, et al. Empirical research on informed consent: An annotated bibliography. *Hastings Cent Rep.* 1999;29(1):S1–42.
37. Brett A, Grodin M. Ethical aspects of human experimentation in health services research. *JAMA.* 1991;265(14):1854–1857.
38. Winter PE. Human subjects research review in the Department of Defense. *IRB.* 1984;6(3):9–10.
39. Scicchitano J. I'm a human guinea pig. *Army Times.* 30 October 1989:14.

40. Trials of War Criminals Before the Nuremberg Military Tribunals Under the Control Council Law No. 1011-14 (1946–49). Available at: <http://ohsr.od.nih.gov/nuremberg.php3>; Accessed 29 May 2002.
41. Advisory Committee on Human Radiation Experiments. *Final Report*. Washington, DC: GPO; 1995.
42. Welsome E. *The Plutonium Files: America's Secret Medical Experiments in the Cold War*. New York: Dial Press; 1999.
43. Moreno JD. *Undue Risk: Secret State Experiments on Humans*. New York: Freeman Press; 1999.
44. Wilson memorandum. Dated 26 February 1953. From the Secretary of Defense to the secretaries of the army, navy, and air force. Available at: [http://www.tis.eh.doe.gov/ohre/roadmap/achre/chap1\\_3.html](http://www.tis.eh.doe.gov/ohre/roadmap/achre/chap1_3.html); Accessed 7 June 2002.
45. Hudson N. Cold war secrecy linked to unethical tests on troops. *Army Times*. 6 June 1994:23.
46. 21 USC sec 355(1); 1988.
47. Letter, sent from the Assistant Secretary of Defense for Health Affairs to the Assistant Secretary for Health of the Department of Health and Human Services, dated 30 October 1990.
48. Annas GJ. Changing the consent rules for Desert Storm. *N Engl J Med*. 1992;326(11):770–773.
49. Poikonen J, McCart GM, Veatch RM. Waivers for military use of investigational agents. *Am J Hosp Pharm*. 1991;48(7):1525–1529.
50. Howe EG, Martin ED. Treating the troops. *Hastings Cent Rep*. 1991;21(2):21–29.
51. Levine C. Military medical research: 1. Are there ethical exceptions? *IRB: Rev Hum Subjects Res*. 1989;11(4): 5–7.
52. Cooper RM. Military medical research: 2. Proving the safety and effectiveness of nerve gas antidote—a legal view. *IRB: Rev Hum Subjects Res*. 1989;11(4):7–9.
53. Kessler DA. The regulation of investigational drugs. *N Engl J Med*. 1989;320(5):281–288.
54. Singer P. Tools for research. In: *Animal Liberation*. New York: Avon Books; 1975: 27–91.
55. Cohen C. The case for the use of animals in biomedical research. *N Engl J Med*. 1986;315(14):865–870.
56. *The Case Book of Experiments With Living Animals*. Jenkintown, Pa: The American Anti-Vivisection Society; August 1988.
57. Donnelley S, Nolan K, eds. Animals, science, and ethics. *Hastings Cent Rep*. 1990;20(3):S1–30.
58. Caplan AL. Beastly conduct: Ethical issues in animal experimentation. *Ann N Y Acad Sci*. 1983;406:159–169.
59. Regan T. *The Case for Animal Rights*. Berkeley: University of California Press; 1983.
60. Varner G. The prospects for consensus and convergence in the animal rights debate. *Hastings Cent Rep*. 1994;24(1):24–28.
61. Federal Report. The Office of Research on Women's Health in the 1990s. *J Am Med Women's Assoc*. 2000;56:77–78.
62. Wakefield J. NIH requires studies to include minorities. *US Medicine*. 26 June 1994.
63. Ziskin LZ, Favata EA. Creating an agenda for women's health. *N J Med*. 1993;90(12):930–932.

64. Department of Defense. Section I. CDMRP overview. FY99 CDMRP annual report. In: *Congressionally Directed Medical Research Programs*. Available at: <http://cdmrp.army.mil/annreports/1999annrep/section1.htm>. Accessed 9 May 2002.
65. Department of Defense. Section X. Defense Women's Health Research Program. FY99 CDMRP annual report. In: *Congressionally Directed Medical Research Programs*. Available at: <http://cdmrp.army.mil/annreports/1999annrep/section10.htm>. Accessed 9 May 2002.
66. Dresser R. Wanted: Single, white male for medical research. *Hastings Cent Rep*. 1992;22(1);24–29.
67. Cotton P. Examples of gaps in medical knowledge. *JAMA*. 1990;263:2113–2117.
68. Department of Defense. Breast Cancer Research Program. In: *Congressionally Directed Medical Research Programs*. January 31, 2002. Available at: <http://cdmrp.army.mil/pubs/factsheets/bcrpfactsheet.htm>. Accessed 29 May 2002.





# Chapter 19

## THE HUMAN VOLUNTEER IN MILITARY BIOMEDICAL RESEARCH

PAUL J. AMOROSO, MD, MPH<sup>\*</sup>; AND LYNN L. WENGER, MSBA<sup>†</sup>

---

### INTRODUCTION

#### HISTORICAL BACKGROUND OF MILITARY HUMAN SUBJECTS RESEARCH

- Experiments With Mustard Gas
- Experiments With Radiation
- Experimental Administration of Lysergic Acid Diethylamide
- An Army Research Program Develops

#### ETHICAL GUIDELINES GOVERNING HUMAN SUBJECTS RESEARCH

- The Belmont Report*
- The Common Rule
- Assurances

#### USE OF DATA OBTAINED WITHOUT CONSENT

#### ETHICAL CONSIDERATIONS FOR EPIDEMIOLOGICAL STUDIES

#### ETHICAL PRINCIPLES APPLIED TO EPIDEMIOLOGY

- Individual Informed Consent
- Community Informed "Consent"
- Communication of Study Results
- Harms and Wrongs
- Respect for Social Mores
- Confidentiality
- Conflict of Interest

#### ETHICAL REVIEW PROCEDURES FOR EPIDEMIOLOGICAL STUDIES

- Representation of the Community
- Assuring Scientific Integrity
- Control Groups

#### MILITARY REGULATIONS PERTAINING TO HUMAN RESEARCH

- Special Features of Military Regulations
- Rules About Using Patient Records in Military Research
- Special Ethical Problems in Military Research

#### OTHER TOPICS IN MILITARY HUMAN RESEARCH

- Deception in Military Research
- Classified Research
- Special Compensation Programs
- Electronic Data
- An Example of a Military Human Research Program

#### CONCLUSION

#### ATTACHMENTS: SEMINAL DOCUMENTS IN BIOMEDICAL RESEARCH

<sup>\*</sup>Colonel, Medical Corps, United States Army; Research Epidemiologist and Project Director, Total Army Injury and Health Outcomes Database Project, United States Army Research Institute of Environmental Medicine, MCMR-EMP, 42 Kansas Street, Natick, Massachusetts 01760-5007

<sup>†</sup>Formerly, Human Research Support Program Coordinator, The Soldiers Systems Command, Natick, Massachusetts



Army scientists and research volunteers conducting physiological testing in the “Jungle Room” at the US Army Climatic Research Laboratory (CRL), Lawrence, Massachusetts, 1945, one of five paintings by US Army technician 4th grade Moore, an enlisted soldier assigned to the facility. CRL was relocated to Natick, Massachusetts in 1954 and renamed the Environmental Protection Research Division (EPRD). In 1961, elements of the Armored Medical Research Laboratory joined with EPRD to form the US Army Research Institute of Environmental Medicine (USARIEM). For many years, these art works were scattered. Circa 1983, they were reunited, but then in 1997, they were again separated, with three aside for disposal. Through the determined efforts of USARIEM scientists concerned for the preservation of the military historical record and the conservation of the paintings, they were reunited, refurbished, and reframed in time for the celebration of the 40th anniversary of USARIEM, 1 December 2001.

## INTRODUCTION

There are extensive regulations and guidelines that govern what can, after appropriate review, be done in biomedical and behavioral research involving human subjects. These policies, though they may prescribe what scientists should or should not do, cannot adequately cover every situation researchers might currently encounter nor can they anticipate every potential situation that will arise in the future. When disregard for basic human rights in experimentation has occurred even in relatively recent times, it brings to the forefront the need to continually examine the practices of previous scientists to endeavor never to make the same mistakes again. Understanding the history of others' mistakes is a first step in learning to do what is right. Understanding change is part of that. What used to be acceptable practices may seem entirely inappropriate from a more current viewpoint, and there will continue to be phenomenal change. For example, in recent years the human genome has been completely deciphered, mammals have been cloned, and patient records will soon be largely electronic. Technology allows personal and medical information to be kept track of in ways unimagined even a decade ago. What new ethical challenges will these developments bring to research on human health and disease?

As the previous chapters in this volume demonstrate, ethics is at best an imprecise science. Is there even a reasonably clear definition of *right* and *wrong* that can be relied upon today? Even the apparently simple task of defining *research* and *ethics* is deceptively complex. Excellent books have been written on these topics recently,<sup>1-8</sup> yet none can address every important issue. Can there even be agreement on what constitutes "research" and therefore when a person is a research subject? For instance:

- Is the purchase of groceries in the supermarket consent to being a research subject? If a supermarket keeps track of every purchase a person makes, and then uses the information as an inducement for customers to spend even more, is that acceptable? Do such researchers need consent to study consumers in this fashion? Is the collection of data on purchasing habits research?
- Is the use of the internet consent to being a research subject? If a commercial web site keeps track of every visitor, what they download to their own computers, what they look at, and for how long, and then

target individuals with particular browsing habits for special offers, is that acceptable? Do such researchers need consent to study consumers shopping habits, refining their methods until they define optimum patterns to identify those ready to buy particular products?

- Are individuals wronged if their personal information is used without their knowledge even if they suffer no adverse consequences? Does it matter if the results or methodologies developed are published or just used by the corporation for its own financial benefit? Does there need to be a documented or potential harm to an individual for oversight to be required?

Questions applicable to a military setting include:

- Is a military test pilot (similar to Figure 19-1) engaged in research when testing a new aircraft? Is an Airborne soldier (similar to Figure 19-2) who parachutes with a new parachute and is then asked to fill out a questionnaire on his perceptions of the new parachute a research subject? Are service members departing the front gate of their base research subjects if an inconspicuous person stands nearby recording seat belt usage?
- Are service members completing standardized mail opinion surveys on satisfaction with military life research subjects if the only purpose of the survey is to inform Congress how to improve benefits and retention? Does their status change if the survey collects data on housing costs but is made mandatory by the chain of command?

For our purposes, research is a systematic investigation designed to test hypotheses, permit conclusions, and develop or contribute to *generalizable knowledge*. Not all data collection or experimentation is necessarily research; it could be education or therapy. The difference is primarily one of intent or overall purpose. For example, if a physician finds a patient's condition does not respond to a certain drug, the physician may try other drugs to find one that works better. Provided that the drugs being used are clinically approved (ie, not themselves investigational), such "experimentation" would constitute therapy, not research. Yet, if this same phy-





**Fig. 19-1.** A pilot awaits clearance for takeoff. Test pilots who evaluate new or recently repaired equipment are not considered research subjects. Photograph courtesy of “Best of the Air Force” CD-ROM, First Edition, 1998. Defense Visual Information Center, March Field, California.

sician decides to try these same drugs on a series of patients to see if the results are the same as they were with the original patient, then this activity would most likely be classified as research. Similarly, a noncommissioned officer (NCO) demonstrating how to make anthropometric measurements for the unit weight management program is engaged in teaching rather than research as long as the activities are confined to a particular class or classes. If the NCO were to make anthropometric measures of service members in several units and compare them to see which unit had the greatest physical fitness, then that would be research.

Research is governed by rules. There are, however, two fundamental problems with rules. First, although they may represent society’s collective wisdom at the present time, it is unrealistic to ex-



**Fig. 19-2.** A parachutist exits a plane. Airborne soldiers who were recruited to participate in a randomized controlled trial of an outside-the-boot ankle brace, in hopes that this new equipment may reduce ankle injuries among parachutists, were briefed thoroughly on the purposes of the study by the investigators, who obtained their informed consent. Photograph courtesy of “Best of the Air Force” CD-ROM, First Edition, 1998. Defense Visual Information Center, March Field, California.

pect that any set of rules can cover every possible ethical situation that might be encountered by researchers. Second, rules seldom keep pace with the many rapid changes in technology, as they do not evolve quickly enough to govern the myriad ethical challenges that are continually emerging. In fact, attitudes and beliefs about what is right and wrong change as the environment changes, as knowledge changes, and as advancing technologies allow individuals to confront new issues and study things that they simply did not have tools to study in the past.

Previous chapters have addressed the consequences of inadequate ethical oversight in human



research. Given that apparent breaches of ethics can happen anywhere, and that many have occurred in recent times, it is clear that there must be vigilance in protecting the rights of research volunteers. Unfortunately, some of the most egregious breaches of ethical conduct have occurred since the Nuremberg Code was written. Most of the time, research investigators have interests that parallel those of the volunteers in their study. For example, research cannot be effectively conducted without the cooperation of the volunteer. (It is important to note that we use the term “volunteer” in the strictest sense; those who were subjected to experimentation in Nazi Germany, for instance, would not be classified as volunteers by any reputable researcher.) If a volunteer is harmed, they are not likely to remain available to continue the research for very long.

However, investigators are also subjected to a host of subtle and often not so subtle pressures to complete a research study. These pressures come in many forms, such as the need to follow rigorous scientific procedures, to remain productive (to satisfy one’s superiors, attain a promotion, or otherwise advance one’s career), to make efficient use of often scarce research funds, and to stay on schedule so as not to miss a window of opportunity. Many other pressures exist; new ones arise regularly. Because these pressures occasionally run counter to the best interest of the volunteers, a high degree of scrutiny and oversight is required before a study is initiated, as well as during its conduct. Ideally, a thorough review of study activities is also conducted after a study is complete so that problems and potential problems can be identified and dealt with appropriately in the future.

Ethical problems in research arise when scientists knowingly or unknowingly allow external factors to take precedence over the rights of the individual test subject, when they forge ahead unaware of risks and possible safeguards, or, more frequently, when they do not truly understand the underlying principles of volunteer rights. For example, scientists may feel justified in risking the well-being of a few subjects if they believe the benefit to society will far outweigh the risks imposed on a few individuals. Unfortunately this reasoning has led to grave ethical and moral violations. Such transgressions can best be avoided by always putting the rights of the volunteers first.

Much also depends on the attitude the researcher has towards the volunteer. Katz, in writing about why study subjects in the Tuskegee Syphilis Study were exploited, manipulated, and deceived, states, “they were treated not as human subjects but as

objects of research.”<sup>9(p4)</sup> Feldshuh, who wrote a play, “Miss Evers’ Boys,” about the Tuskegee Syphilis Study, explored the relationship between patients and doctors or volunteers and researchers. After interviewing the physicians and subjects involved in the study, he concluded, “really what I found was a growing adversarial relationship, a sense of an ‘I-it’ relationship rather than an ‘I-thou’ relationship; a sense of objectification, a sense of thoughtlessness, a lack of identity.”<sup>10(p32)</sup> An “I-thou” relationship recognizes each person’s human dignity. It acknowledges the spiritual nature of humans. Establishing an “I-thou” relationship with one’s research volunteers will make it less likely that research ethics will be violated.

The previous chapter pointed out how much negative public sentiment there is concerning military research involving human subjects. One may argue that this negative opinion is not always valid and may not always be based on facts. Nonetheless it exists and military researchers should be aware of this. In addition to the ethical principles that govern human subjects research in the civilian sector, military researchers must have a thorough understanding of all the military regulations that pertain to their research. Knowledge of the regulations alone, however, is not enough to prevent ethical violations during the conduct of military research.

How then does one conduct ethical and scientifically valid military research using soldiers, sailors, and airmen as research volunteers? What are the policies and regulations governing military human research? What can be learned from the past? Are there special considerations for doing research using human subjects in a military environment? For example, how might a researcher’s higher military rank, educational level, or social status affect the way he treats a young enlisted person who has volunteered for a study? This chapter cannot possibly cover every aspect of the very complex area of research ethics. Instead, we will provide an overview of military and civilian regulations, as they currently exist, concerning biomedical and behavioral research using human subjects, while providing a reasonable measure of historical context and military perspective. The authors’ experience is derived primarily from Army medical research, so many of the examples are derived from Army programs. Because all Army regulations stem from a common Department of Defense (DoD) source, however, there are few differences in oversight between the various military services and thus there should be no difference in the ethical principles that apply to research conducted by any of the military

services. There are a number of issues unique to the military research environment and we will review several of these. We will also describe a unique Army

research program that employs active duty Army soldiers whose principal duties are to be available to volunteer for human research experiments.

## **HISTORICAL BACKGROUND OF MILITARY HUMAN SUBJECTS RESEARCH**

In 1900, one of the earliest examples of military research using human subjects was conducted by Army Major Walter Reed to determine the methods of transmission of yellow fever. The subjects in Reed's study were volunteers who gave written consent after being informed about the risks of the study. Subjects were warned that death could occur as a result of their participation, but at the same time, they knew that they risked dying of yellow fever simply because they were present in Cuba, where the disease was highly prevalent. Risks were minimized through constant observation and the provision of the best medical care then available. Although Reed was a forerunner of the modern principle of obtaining informed consent, this study could not have been conducted today because current guidelines specify that research should not be conducted if death is a likely outcome.

It is not known how widespread the practice of obtaining voluntary informed consent was in military research prior to the Nuremberg Code. An early Army Regulation, *The Prevention of Communicable Diseases of Man—General* dated 21 April 1925, mandated that experimental research should be conducted only on volunteers. In 1943 the Navy conducted a study using prisoners at San Quentin to test an influenza vaccine. The Navy used consent forms and ensured that prisoners were not coerced to participate in the research.<sup>11</sup>

On 26 February 1953, Secretary of Defense Charles E. Wilson issued a top-secret memorandum based on the Nuremberg Code. Often referred to as CS:385, the Wilson Memorandum<sup>12</sup> (Exhibit 17-3, in Chapter 17, *The Cold War and Beyond: Deceptive and Covert American Medical Experimentation*, provides the text of the memorandum) was not declassified until 1975. It applied only to human research in the fields of atomic, biological, and/or chemical warfare.<sup>11</sup> In 1954 the Army Surgeon General's office issued an unclassified memorandum specifying protections of human subjects in research, based on the Nuremberg Code; this memorandum applied to all human research, not only atomic, biological, or chemical testing.<sup>11</sup> Even though this memorandum applied only to the Army, the Navy and the Air Force had instituted their own regulations governing such research in 1951 and 1952.<sup>11</sup> The continuing history of military human

research contains examples of research that was conducted ethically and appropriately, as well as instances in which transgressions against human subjects occurred. Examples of unethical military human research include the mustard gas experiments in the 1940s,<sup>11,13</sup> the atomic tests in the 1950s,<sup>11,14,15</sup> and the lysergic acid diethylamide (LSD) experiments in the 1960s.<sup>11</sup>

### **Experiments With Mustard Gas**

Although the Navy had used consent forms with prisoners at San Quentin in 1943, the Navy did not do the same when it conducted mustard gas experiments among naval personnel in the 1940s. Nor did they adequately inform the subjects of the nature of the experiments. Almost 2,000 Navy personnel were subjected to these tests during World War II and many have suffered long-term health effects such as chronic laryngitis, chronic bronchitis, emphysema, asthma, chronic conjunctivitis, and corneal opacities.<sup>16</sup> These studies were classified and records of participation were destroyed so it was difficult for former test subjects to receive compensation for appropriate medical care. Congress finally approved compensation for these veterans in 1991, nearly 50 years after their exposure to mustard gas.<sup>13,16</sup>

### **Experiments With Radiation**

The *Final Report of the Advisory Committee on Human Radiation Experiments* (ACHRE),<sup>11</sup> published in 1995, documents many violations of these early DoD and service-specific memoranda concerning the ethical conduct of research. Starting in 1946, with the first peacetime nuclear weapons tests in the Bikini Atoll, until 1963, when atmospheric testing was halted by the Limited Test Ban Treaty, numerous radiation studies were conducted using service members and civilians as subjects. A review of these studies shows some common mistakes in conducting research that still occur today, such as underestimating the risks of a study, confusing research with training, using careless or questionable scientific methods, not informing the appropriate service surgeon general of the research, and not being aware of service and DoD policies governing

research. There was also a problem in determining what was human research and what were normal risks of performing military duties.

In 1951 (prior to the 1953 Wilson memorandum), Dr. Richard Meiling, chair of the Secretary of Defense's top medical advisory group, advocated that soldiers be involved with atomic bomb tests so they might overcome fear of radiation.<sup>11</sup> He and his colleagues believed that there were no risks in being exposed to radioactive fallout after a nuclear bomb blast and in fact asserted that the soldiers' fear was a greater risk because the soldiers would be unwilling to enter an area where a blast had occurred in order to complete their mission.

On 1 November 1951, the Army conducted an exercise named Desert Rock I, in which more than 600 soldiers occupied positions 7 miles from ground zero. At the outset of the study (approximately 30 days before the blast) the soldiers were assigned to two groups—(1) the experimental group, and (2) a control group that stayed at home base during the blast. Both groups were given lectures and viewed films about the effects of the bomb blast and radiation safety. Both groups were given questionnaires asking how well they understood the information provided. Several weeks after the blast the same questionnaire was given to the experimental group and the control group.<sup>14</sup> The purpose of the questionnaire was to test how successfully they had acquired and retained information about the blast and whether exposure to the blast helped to alleviate their fears of radiation. Blood pressure and heart rate were also monitored for the experimental group a few days before and several days after the blast, using a polygraph.

In 1952 the Army and the Armed Forces Special Weapons Project determined that the results of Desert Rock I were inconclusive due to poor research design. Nine of the 30 questions on the questionnaire were unclear or erroneous and some questions seemed to be purposely misleading.<sup>11</sup> The researchers' preconceived notions may have led to the construction of a questionnaire designed to give the researchers the desired results. This experiment demonstrates the failure to apply several ethical principles. The outcome was that the risks of the research were underestimated, the researchers and commanders failed to obtain voluntary informed consent, and the scientific methods were flawed. Because the researchers believed there was no risk involved in exposure to radiation, they took no safety precautions on behalf of the soldiers exposed to radiation. The military commander did not view this as research but as part of routine training, and

so did not obtain informed voluntary consent from the soldiers who were exposed. Desert Rock I and Desert Rock IV (1951 and 1952, respectively) took place before the Wilson Memorandum, but similar Desert Rock exercises took place after the memorandum in 1953, 1955, and 1957.<sup>11(pp457-461)</sup>

From 1948 through 1956 the Air Force conducted a series of studies of radioactive clouds. In the early tests, drones, with mice on board, were used to collect radiation samples from the clouds. Manned aircraft later replaced the drones because better samples could be acquired more readily. In 1955 the first manned early cloud penetration study, "Operation Teapot," was conducted minutes after detonation of nuclear test weapons to learn exactly how much radiation penetrates into the human system. Pilots swallowed watertight capsules containing film. Researchers determined that the amount of radiation measured inside the body was the same as that measured outside the body.<sup>11</sup>

The Atomic Energy Commission had a test-exposure limit of 3.9 roentgens but permitted the four Air Force pilots who flew in "Operation Teapot" to be exposed to 15 roentgens. During "Operation Redwing" in 1956 the authorized test-exposure limit was increased to 25 roentgens. Once again the risks of exposure to radiation were underestimated or minimized. Instead of increasing protection to guard against unknown risks, the investigators did just the opposite and thereby increased the risk.

Some of these studies were conducted under the supervision of Air Force General Ernest A. Pinson, who was also one of the test pilots to fly into the radiation clouds. He later admitted that the scientific knowledge gained by these studies had been previously determined by the drone flights that used mice, and that the data from the human experiments did not add much knowledge to the field. When General Pinson was interviewed in 1995 by the President's Advisory Committee on Human Radiation Experiments he stated that he was unaware of the DoD's 1953 Wilson Memorandum. Had he known about it, "he would have gotten written consent from the people that were involved in this."<sup>11(p472)</sup> At the time, flying through radiation clouds was seen as a part of the pilot's occupation, not as an experimental activity, even though in this instance data were collected and analyzed for purposes of research.<sup>17</sup>

These are just two examples of the many human radiation experiments conducted by the military in the 1950s. The 1953 Wilson Memorandum was not always made known to the investigators conducting these experiments. Sometimes consent was ob-



tained, other times not. Moreover, because many researchers were unaware of the Wilson Memorandum they did not know that their research was subject to review and approval by the appropriate service Secretary. Had these experiments received more scrutiny they may have been modified to reduce the risks or improve the scientific merit.

The mechanisms of the modern-day review committees are structured to ensure that these transgressions do not occur in contemporary research. These mechanisms are guided by sound scientific principle. For instance, if risks are not known they should not be assumed to be minor (it makes more sense to assume the risks could be greater than expected and take precautions to minimize risks); studies may be conducted to evaluate risks without first exposing humans; research must be distinguished from training or other occupational duties; and research subjects, especially when service members, must be given the option not to participate.

### **Experimental Administration of Lysergic Acid Diethylamide**

The Army's experimentation with mind-altering drugs from the early 1950s to the 1970s provides further illustration of the consequences that may ensue when researchers ignore or are unaware of the policies and regulations governing human research. The Army was concerned about other countries using hallucinogenic drugs to incapacitate American troops. Between 1955 and 1967 the Army funded 13 research contracts and conducted numerous in-house studies to determine how lysergic acid diethylamide (LSD) affected a soldier's ability to perform his duties and whether LSD could be effective during interrogations to gain sensitive information.<sup>18</sup> These are certainly valid concerns that were important issues to the military.

Some of these studies were conducted using volunteers, whereas others were conducted using subjects who apparently were not informed that they were part of an experiment. In 1958, for example, an Army soldier named James Stanley volunteered to test the effectiveness of protective clothing and equipment against chemical warfare. He was secretly given LSD without his consent. He did not find out that he had been given LSD until 1975, when the Army sent a follow-up letter to the so-called volunteers who participated in the 1958 LSD studies.<sup>19</sup> His exposure to the LSD most likely was the cause of his hallucinations, memory loss, and periods of incoherence, and may have been the

cause of his violence at home, which contributed to family estrangement.<sup>19</sup> Stanley was clearly not fully informed as to the true nature of the research or the procedures being used in the study. A person or soldier cannot truly be regarded as a voluntary participant in research unless he or she is fully informed that he or she is participating in research activities, and made aware of the risks and benefits this research may entail.

Experiments such as these often become known to the public through lawsuits, presidential investigations, and media coverage. Perhaps less is known about the ethical military research that was conducted, because ethical research does not often attract the attention of the civilian news media.

### **An Army Research Program Develops**

Between 1954 and 1955 a climatic chambers building was constructed in Natick, Massachusetts specifically to conduct climatic research using human volunteers (Figure 19-3). Here soldiers and their equipment could be tested while replicating virtually any climatic condition on earth. In the



**Fig 19-3.** Constructed in the mid-1950s, and completely renovated in the late 1990s, the climatic chambers in Natick, Massachusetts, can simulate weather conditions as cold as  $-70^{\circ}\text{F}$ , with variable relative humidity and precipitation. This arctic chamber and the companion tropic chamber are used to test clothing, equipment, and human physiology under a variety of environmental conditions. Investigators shown here are observing human volunteers in a circa 1958 study in the cold. Photograph: Courtesy of US Army Research Institute of Environmental Medicine, Natick, Massachusetts.



summer of 1955 the building was ready for testing but a pool of soldier research volunteers was needed. Mr. Edwin G. Zelezny (who held the position of Human Research Support Program Coordinator from the establishment of the laboratory until the 1980s) traveled from Natick to the Chemical Corps Medical Laboratories at Fort Detrick in Frederick, Maryland to learn how scientists there recruited soldier research volunteers. In a detailed memorandum for record<sup>20</sup> dated 1 July 1955, Mr. Zelezny wrote about this program. From that memorandum, a model was developed for the nascent program to be formed in Natick, Massachusetts. His memorandum states,

To implement the volunteer aspect of the program a Volunteer's Participation Agreement requiring the signature of the individual soldier was prepared by the Chemical Corps legal office.<sup>20</sup>

The commander of the Chemical Corps Medical Laboratories provided Mr. Zelezny with a copy of the materials from Fort Meade detailing recruitment of military volunteers. Enclosure 2 of this memorandum details the recruiting briefing. There was a 40- to 50-minute briefing to familiarize prospective volunteers on the purpose of the proposed investigations. The briefing was outlined in the enclosure:

Emphasis will be placed on the following:

- a. The completely voluntary nature of the program, stressing individual privilege to withdraw at any time without criticism.
- b. A description of various types of investigations in which volunteers will participate stressing safeguards for the individual.
- c. An orientation on garrison duty at Army Chemical Center, Maryland, while on volunteer status and official recognition on completion of duty.<sup>21</sup>

In a letter dated 10 December 1959, Lieutenant Colonel Carl L. Whitney, the commanding officer of the Quartermaster Research and Engineering Center Laboratories, instructed that the following message be read to all research volunteer candidates<sup>22</sup>:

It is recognized that each individual faced with making an important decision, especially while a member of the armed forces will in many cases take a 'what's in it for me' attitude. I'm sure many of you are asking yourself that question right now. That is good: I would like to think that every one of you who volunteer for service as a Quartermaster test subject have considered your decision. I

would like to tell you that every effort will be made to assure that service as a subject under my command will:

- a. Consist of an interesting variety of non-routine assignments of military and scientific importance.
- b. Require a minimum amount of details including KP ["kitchen patrol," ie, working in the mess hall].
- c. Provide a liberal amount of off-duty time.
- d. Insure your right to resign at any time as a test subject.
- e. Provide excellent housing and recreational facilities.
- f. Insure special consideration and concern for your personal welfare and status.

From past experience we can state that the work as a test subject might be expected to be on the difficult side about 20 percent of the time, and considerably less difficult the rest of the time. I honestly believe that those of you who volunteer and pass the selection procedure will consider yourselves as having made the right choice after you have had an opportunity to serve at Natick.

One of the researchers who was there at Natick from the very first of the program and observed its development was Dr. John Kobrick. He began his career as research psychologist for the US Army Quartermaster Research and Development Command in February 1953, before the command was even located in Natick. "Things were simpler then, but we still followed the rules of informed consent. We knew what was right and we just did it."<sup>23</sup> The investigator was credentialed and then it was assumed that he knew what he was doing. Research proposals had to be approved by the investigator's section chief, branch chief, and division chief. Even though there were no formal scientific and human use review boards, at the time, proposals were still reviewed by the chain of command.

To recruit volunteers, Dr. Kobrick and his fellow investigators went to Edwin Zelezny and his pool of volunteers. The investigators briefed these soldiers about their studies and gave them informed consent forms to sign. The procedures are similar to those used today at what is now called the US Army Soldier Systems Biological and Chemical Command (SSBCOM). These procedures are also followed by the US Army Research Institute of Environmental Medicine (USARIEM), which was founded at Natick in 1961. From the beginning, the research scientists at Natick were concerned about the safety and rights of the research volunteers.

There was always a medical officer assigned to the soldier research group whose job was to insure the safety of the soldier-volunteers. The medical officer cleared the soldiers for the studies and monitored them while they were participating.

Unfortunately, during the Vietnam War era there were times when the volunteer status of the members of the test subject platoon at the US Army Quartermaster Research Development Command was compromised. Soldiers were given briefings concerning Natick's mission at their basic training site in Fort Dix, New Jersey. Those who volunteered to come to Natick as test subjects were interviewed and given psychological tests. Those selected to be volunteers were generally very relieved to be assigned to Natick, Massachusetts, rather than being assigned to a unit in Vietnam.

Once these Vietnam-era soldiers arrived at Natick they were given informed consent forms to sign. The various studies were explained to them, and they were assigned to studies. They were also told that if they refused to do two studies in a row they would be sent to Vietnam.<sup>24</sup> It is very likely that they

believed that participating in a study, no matter how arduous, was better than being sent to Vietnam. It is clear that the conditions of voluntary consent were violated through the use of coercion.

These Vietnam-era "volunteers" lived together in an open bay room in the chambers building. They spent so much time together on studies that many of them became lifelong friends. In August 1997, 15 of them returned to Natick for a 30-year reunion. Ironically, even though these particular soldiers may have been treated in an unethical manner, many of them still had fond memories of their time as test subjects. None of them could remember anyone refusing to do a study, nor could they remember anyone actually being sent to Vietnam. The studies in which they participated were grueling, but they remember their off-duty time being very pleasant (when they were not testing these soldiers were permitted to do what they wanted). Although they were subjected to unethical research practices they reported that they made the most of their situation. These former test subjects are proud of their assignment at Natick.

## ETHICAL GUIDELINES GOVERNING HUMAN SUBJECTS RESEARCH

At the time the military test subject program was developing at the Natick Labs, there were a variety of civilian and military guidelines in place that governed the ethical conduct of research using human subjects. The Nuremberg Code was written in 1949 and adopted by the military in 1953, as the Wilson memorandum.<sup>12</sup> The Army regulation governing human research, AR 70-25, *Use of Volunteers as Subjects of Research*, dates to 26 March 1962. The Declaration of Helsinki was adopted by the World Medical Association in 1964, and has been amended 5 times since then.<sup>17,25</sup> Most federal regulations governing protection of both military and civilian human subjects were not in place until the 1970s, even though there had been some guidelines in place that were intended to protect the rights of military research volunteers prior to that. Having rules and regulations is a necessary, but insufficient, condition for protecting the service member research volunteer; the rules must be understood and followed in order to be fully effective.

### The Belmont Report

The *Belmont Report* is a philosophical statement that is the current foundation of the federal regulations governing the use of human subjects in biomedical and behavioral research in the United States.<sup>26</sup> It is named for the Smithsonian Institute's

Belmont Conference Center, where the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research held its initial 4-day session in February 1976. The commission then met monthly for the next 3 years to formulate what is now regarded as the standard for human use research ethics.

### Definition of Research

The first section of the *Belmont Report* addresses the importance of distinguishing between research and medical practice. According to the *Belmont Report*, "research" designates an activity designed to test a hypothesis, permit conclusions to be drawn, and thereby to develop or contribute to generalizable knowledge.<sup>26</sup> It goes on to state,

Research and practice may be carried on together when research is designed to evaluate the safety and efficacy of therapy. This need not cause any confusion regarding whether or not the activity requires review; the general rule is that if there is any element of research in an activity, that activity should undergo review for the protection of human subjects.<sup>26(PartA)</sup>

Distinguishing between research and medical practice is not always easy: a recent example can be drawn from the Persian Gulf War in 1991, when

soldiers were given pyridostigmine bromide (PB) as a prophylactic measure against chemical warfare agents. Soldiers thought to be at risk of exposure to nerve agents were given 90 mg/day of PB for a maximum of 7 days,<sup>27</sup> to be followed by intramuscular injections of atropine citrate and pralidoxime chloride by autoinjection if exposure to nerve agents occurred.<sup>28</sup> PB had been used at much larger doses for more than 50 years in the treatment of myasthenia gravis, and clinical trials to determine its efficacy in protecting against nerve agents had been done in animals.<sup>27</sup> Research in humans that had been conducted to support prophylactic use of PB had demonstrated the absence of serious side effects and effects on tolerance to exercise and stressful environments.<sup>28</sup> Even though PB had already been approved as a form of therapy, its prophylactic use against nerve agents was technically at an investigational stage; by rights, the DoD should have obtained informed consent before administering PB and notified soldiers of the investigational nature of this treatment. Due to the military emergency, however, the Food and Drug Administration (FDA) granted a waiver to DoD to allow the administration of PB prophylactically without obtaining informed consent.<sup>27,29</sup>

This was the first time PB was given as a pre-treatment drug for nerve agent exposure. Due to the nature of the “illness,” (ie, nerve agent exposure), efficacy testing under actual conditions could not be accomplished because exposing individuals to nerve agents in order to test this therapy would itself have been unethical. After the war, it became known that US soldiers were, in fact, exposed to low levels of nerve agents when they destroyed a cache of Iraqi rockets in a weapons depot at Khamisiyah.<sup>30</sup> There has been a high level of concern about the health effects that these nerve agents may have had on soldiers in the immediate area, and this situation has, in essence, given rise to a “natural experiment” to study the effect of low concentrations of nerve agent exposure on soldier health. Because none of the soldiers in the area at the time demonstrated any acute effects of exposure to nerve agents, however, none of them took the next step in the treatment protocol (ie, intramuscular injections of atropine citrate and pralidoxime chloride by autoinjection<sup>28</sup>). Thus there was never an opportunity to study whether prophylactic use of PB is effective in protecting against nerve agents. There have, however, been efforts to document the side effects of prophylactic use of PB among soldiers who took it during the Persian Gulf War. Controversy arose with the publication of an article, “Pyridostigmine Used as a Nerve Agent Pretreat-

ment Under Wartime Conditions,” in the *Journal of the American Medical Association* in August 1991. The article appeared to be a report of a research study, but in fact was a report of an observation of a natural experiment occasioned by administration of PB in the Airborne Corps; there was no research protocol sanctioned by an institutional review board (IRB), and data were collected based on anecdotal observations of the medical officers serving in the field.

Many ethicists believed that the FDA erred in 1990 when it granted a waiver to allow the DoD to administer PB without obtaining informed consent. Whether or not the FDA should have approved the use of PB in this context, the fact that it was administered so widely and that an opportunity arose to study its effects subsequently are great illustrations of both the difficulties of distinguishing between research and medical practice and the inherent problems of using data collected for another purpose. In this case, an approved drug therapy was authorized for a previously untested indication. In authorizing the use of PB for this purpose, the FDA effectively lifted the requirement for informed consent. At the same time, once the drug was administered, a natural experiment was made possible to examine the effects of this treatment in a large number of healthy individuals—an “experiment” that would certainly have been impossible to conduct if consent had been required of all participants. Given that informed consent was not required, is it ethical to collect outcomes data for research purposes? It is beyond the scope of this chapter to attempt to present definitive conclusions on the appropriateness of administering PB under these circumstances, but this example amply demonstrates that these issues are complex and need considerable thought and reflection.

There are many other situations when it may be unclear whether or not research is being conducted, such as in field testing of new military equipment. Sometimes new clothing and equipment are tested and data are collected from soldiers. Other times field evaluations are conducted that are more along the lines of marketing surveys rather than research. When questions arise as to whether a survey might be research, a review by an IRB is warranted (Exhibit 19-1).

### Three Ethical Principles

The next section of the *Belmont Report* describes three ethical principles that should guide researchers working with human subjects. They are: (1) respect for persons, (2) beneficence, and (3) justice.

**Respect for Persons.** The first principle, respect for persons, includes the concept of respect for a person’s autonomy as well as protection for people

## EXHIBIT 19-1

### RESEARCH VS. PUBLIC HEALTH PRACTICE: WHEN DOES A STUDY REQUIRE IRB REVIEW?

Although guidelines for the ethical review of research are continuously evolving, there is one point upon which there has long been general consensus: that research projects involving human subjects require prior review and approval by an appropriate institutional review board (IRB). The very definition of research, however, involves some ambiguities. The collection or manipulation of data involving human subjects may or may not always be considered research *per se*. Research, as currently defined, occurs when a study is *designed* to contribute to generalizable knowledge.<sup>1-4</sup> “Nonresearch” activities generally take the form of patient treatment, public health practice, program evaluation, or population surveillance.<sup>2,5</sup> Public laws provide for oversight of the collection of confidential information without consent by public health authorities and confer special protection of the information from public disclosure. This is generally because many public health efforts involve the routine collection of highly confidential and sensitive personal and medical information essential to protect the public health (eg, mandatory reporting of communicable diseases). In a similar vein, other public health efforts, such as investigation of disease outbreaks, must occur quickly to reduce the spread of the disease and find the source as quickly as possible. Activities undertaken to investigate disease outbreaks involve application of proven public health strategies, not research. Although the activities may involve case-control or cohort study designs, formal statistical analysis of data, and publication of findings and control measures, the purpose of the work is to apply public health practice, not to contribute to generalizable knowledge, as in a research project.<sup>2,5</sup> While these types of public health activities are generally not designed to contribute to generalizable knowledge, they may often result in publication of findings in the peer-reviewed literature. Thus the distinction between research and nonresearch is anything *but* distinct.

Why do we need ethical review of human research studies in the first place? Ethical review accomplishes several purposes. It provides expert assessment of the safety of any procedures used in a study and it ensures that the autonomy of subjects under study is maintained and that the rights of individuals with diminished autonomy are likewise protected (ie, prisoners, children). It allows an evaluation of risk vs. benefit to ensure that benefits to subjects are maximized while harms are minimized. It helps ensure that any research risks are equitably distributed among populations most likely to benefit from the results. Finally, it ensures that the research design is sound and that those who conduct the research are competent both to conduct the research and to assure the well-being of the research subjects, including obtaining proper informed consent when appropriate.

If we proceed first from the tenet that the common goal of all epidemiologists and public health practitioners is to improve the public’s health using ethically and scientifically sound procedures, while paying particular attention to preserving the rights and protecting the confidentiality of individuals under study, then our debate becomes focused on understanding and improving existing mechanisms to achieve these goals.<sup>6,7</sup> If we agree that the rights of individuals to protection are paramount, then it is essential to support the ethical principles embodied in the most widely endorsed ethical research guidelines,<sup>1-4,8,9</sup> robust oversight of public health activities specifically authorized for federal agencies,<sup>10-12</sup> as well as robust oversight of public health practice conducted under public health powers delegated to states by the US Constitution.<sup>6,13</sup>

Currently, the place to start in determining whether a proposed investigation needs IRB review is to decide whether human subjects are involved and if so, whether the investigation meets the current definition of research. The Code of Federal Regulations, Title 45 Part 46 (45 CFR 46) “The Federal Policy for Protection of Human Subjects (Basic DHHS [Department of Health and Human Services] Policy for Protection of Human Research Subjects),” defines a human subject as a living individual about whom an investigator (whether professional or student) conducting research obtains (1) data through intervention or interaction with the individual, or (2) identifiable private information. Research is defined as a systematic investigation, including research development, testing, and evaluation, designed to develop or contribute to generalizable knowledge.<sup>4</sup> If the matter wasn’t confusing enough, some studies, even if research by definition, are nonetheless eligible for exemption from review. Certain specific conditions must be met, however,<sup>4</sup> and there are varying interpretations of who is authorized to make a determination of exempt status. The Office for Human Research Protections (OHRP) *advises* that the determination as to whether research involving human subjects is exempt should not rest solely with the investigators.<sup>14</sup> Institutions may require review of all research conducted under their auspices, even if the research otherwise appears to qualify for an exemption. Some institutions<sup>15</sup> choose to

(Exhibit 19-1 continues)



**Exhibit 19-1** *continued*

provide an additional measure of protection for human subjects by nonetheless reviewing research projects that would be deemed exempt under 45 CFR 46.101(b).

The *Belmont Report*, the 1979 report of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research,<sup>1</sup> also defines research and further contrasts it with clinical<sup>5</sup> practice. Practice refers to interventions (diagnosis, prevention, or treatment) designed solely to enhance the well-being of *specific* individuals, whereas research encompasses activities designed to test hypotheses, permitting conclusions to be drawn, and thereby developing or contributing to generalizable knowledge (expressed or published as theories, principles, or statements of relationships). In this case the benefit potentially extends well beyond the individual as it can be generalized to other individuals or populations. While a practitioner may derive general knowledge of patients in a clinical practice and an epidemiologist may develop knowledge of individuals through observation of a population, in research, the scientific method is used to produce generalizable results suitable for critical evaluation, confirmation, or refutation. The more recent report of the National Bioethics Advisory Commission (NBAC)<sup>2</sup> also wrestles with definitions of research, human participation, and generalizable knowledge as well as what activities should be subject to federal oversight. The importance of who benefits from an activity is also discussed. In the case of patient care it is unambiguous, as the beneficiary of a treatment is the patient. In the case of research, however, the relationship between individual and investigator is different in that the intent of the activity is to generate knowledge that is of primary benefit to society. This creates a potential conflict of interest between the investigator's desire to pursue knowledge and his or her ethical responsibility to protect the rights and welfare of the research participant.

Deciding whether an activity constitutes research on the basis of whether it contributes to generalizable knowledge is fraught with many difficulties. Such a distinction may have fundamentally little to do with the nature and source of the data or the methods used to accomplish a study. It may also have little to do with the primary status of the agency conducting the study as a public health department, surveillance activity, or research institution. As mentioned, many activities directed by federal, state, and local health departments are essential for carrying out core public health functions, such as assessing public health status or rapidly assessing emerging threats to the public's health. Some public health authorities also undertake research involving human participants that clearly requires IRB review. Public health laws authorize many activities that involve human subjects, including routine collection of personally identifiable medical information without informed consent under mandatory disease reporting. These laws also provide for privacy protections from unauthorized disclosure of this protected information.<sup>6,13</sup> A dilemma might be thought to arise, however, when a public health practice or surveillance activity, whether routinely or unexpectedly, generates knowledge that, if widely disseminated, might have an effect on the public's health. At some point it will be evident that generalizable knowledge will result. When does such work earn the classification of research, and when is the work or result of the work nonresearch?

To wit, does the publication and dissemination of findings from a public health practice or surveillance project tilt the balance toward a designation of research? The peer-reviewed literature is, virtually by design, the principal medium for dissemination of generalizable medical and scientific discovery (eg, research). Currently, the consensus seems to be that the answer to this question hinges on the original design of the study. If the study is designed at the outset to contribute to generalizable knowledge, it is research. The alternative argument is that if generalizable knowledge is only an unexpected consequence of the work then it may not be research for the purposes of the traditional IRB review requirement. Even if all reports of studies presented for publication in the peer-reviewed literature are not derived from research it may nonetheless be reasonable for an editor to take the posture of considering them research until proven otherwise. Legal and ethical responsibility for assuring protection of participants in human research, however, must rest primarily with the investigators. Ultimately, publication and dissemination of research provides for public disclosure of research methods and design, interpretation of findings, and scrutiny of the integrity of the study and validity of findings.

Authors are typically required, as a condition of publication, to affirm that they have met these standards. At a minimum, all research articles publishing data involving human subjects that are submitted for publication should contain a statement indicating whether they had formal ethical review in accordance with 45 CFR 46 (if in the United States) or the Declaration of Helsinki<sup>8</sup> (if outside the United States). If the research was deemed exempt under 45 CFR 46, the statement should include who made that determination, and if the study was classified as nonresearch, then a description of the legal basis for that determination should likewise be provided. 45 CFR 46 was last updated in August of 1991, and while it does an adequate job of describing exempt categories of research, it was not intended to address nonresearch and in fact was written with clinical practice in mind, not public health practice.

(Exhibit 19-1 continues)

**Exhibit 19-1** *continued*

In 1996, the Council of State and Territorial Epidemiologists (CSTE) issued a position statement calling for OHRP and the Centers for Disease Control (CDC) to address this issue.<sup>16</sup> The CSTE noted that many of the activities conducted by state and territorial health departments are essential in carrying out core public health functions, such as addressing the health status of communities or a state's population through surveillance activities or conduct of outbreak investigations to determine cause and appropriate control measures. They further noted that agencies have a legal mandate to conduct these activities to protect the public health, and commented on the vital role of these activities for the "public health care" of the community. The CSTE's position is that these activities do not constitute research and should not be classified as such. The position statement further indicates that obtaining IRB approval and requiring informed consent of subjects could severely hamper the collection of surveillance data or timely response in outbreak situations. Ethical review of research involving human subjects, as it is carried out in the United States, admittedly can be a time consuming process. The legal mandate for public health departments to perform surveillance arguably could not be fulfilled in a timely and efficient manner if full institutional ethics review was required for all of its activities. Interestingly, the Health Insurance Portability and Accountability Act of 1996 (HIPPA), one of the most stringent sets of rules passed to protect the confidentiality of medical information, includes a "public health carve out"<sup>17</sup> a section intended to ensure unfettered operation of vital public health monitoring efforts.

By clarifying and explicitly identifying the distinctions between public health practice and research, conflict can be avoided and both systems of oversight strengthened. Activities of state and local health agencies are allowed under legal authority derived from the US Constitution and are accountable to the public, which legitimizes these activities.<sup>6,13</sup> "Defining an activity as public health practice does not absolve the practitioner from attending to issues of patient consent, protection and confidentiality. Rather, it moves the locus for oversight of these activities from the IRB to the appropriate state legislative and administrative codes, rules and regulations governing these activities."<sup>18</sup>

Recognizing the absence of any formal guidance on the matter, the CDC issued a white paper "Guidelines for Defining Public Health Research and Public Health Nonresearch" in 1999. This groundbreaking document attempts to differentiate research from nonresearch while providing examples of each in the settings of surveillance, emergency responses, and program evaluation. This document unfortunately is predicated upon acceptance of the current definitions of research, human subjects, generalizable knowledge, and surveillance, any or all of which may be less than satisfactory given the current discussion. The document also does not provide an explicit decision tree that could be followed in making decisions about when and whether to seek or require IRB clearance.

Policy and guidance for the protection of human subjects is not uniform for all types of investigative activities. The authority of OHRP to enforce compliance, for example, derives from a statutory mandate, but is limited to research activities funded by grants and contracts from the federal government. This power stems from a constitutional provision for "conditional spending power" which allows the government to regulate what it pays for. The FDA has separate constitutional authority based on the interstate commerce clause. Of potentially greater concern is that studies funded and conducted using private funds occasionally proceed with no ethical oversight at all.

What is urgently needed is a set of guidelines that clearly differentiates public health practice from research. While both types of activities have existing, strong mechanisms to ensure an adequate and consistent level of ethical oversight, there is considerable ambiguity in the current guidance for differentiating between the two. Consideration should be given to the creation of a new 45 CFR 46 category or categories of exempt activities performed by federal agencies or states under legal authority derived from the US Constitution.<sup>19</sup> This could be done using the three criteria recently established by the US Supreme Court in *Whalen v Roe*<sup>7</sup> in confirming the authority of states to collect sensitive personally identifiable information without informed consent. The criteria were: (1) the information is reasonably related to a valid public health purpose; (2) disclosure of the information is limited to public health departments; and (3) there are adequate statutory confidentiality provisions in place. The disparate laws and regulations governing public health practice and research need to be updated to eliminate the current ambiguities. Meanwhile, the public health community needs to come together to develop interim guidance with examples that can be used to determine if appropriate oversight of studies involving human participants has occurred.

Sources: (1) National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. *The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research*. Washington, DC: Office of Protection from Research Risks, Department of Health, Education, and Welfare; 1979. (2) *Ethical and Policy Issues in Research Involving Human Participants, Vol. 1: Report and Recommendations*. Bethesda, Md: National Bioethics Advisory Commission; 2001 (3)

(Exhibit 19-1 continues)

**Exhibit 19-1 continued**

*Protection of Human Subjects*, 45 CFR 46 1991. (4) *Protection of Human Subjects*, 32 CFR 219 1991. (5) Centers for Disease Control and Prevention. *Guidelines for Defining Public Health Research and Public Health Nonresearch [white paper]*. Available at: <http://www.cdc.gov/od/ads/opspoll1.htm>. (6) Gostin LO. *Public Health Law: Power, Duty, Restraint*. Berkeley, Calif: University of California Press, 2000. (7) Supreme Court of the United States. *Whalen v. Roe* 429 US 589. (8) *Declaration of Helsinki: Ethical Principles for Medical Research Involving Human Subjects*. Helsinki, Finland: World Medical Association; 2000. (9) Council for International Organizations of Medical Sciences. *1991 International Guidelines for Ethical Review of Epidemiological Studies*. Geneva, Switzerland; 1991. (10) P.L. 105-85, 111 Stat. 2078 (18 November 1997). (11) *Medical tracking system for members deployed overseas*, 10 USC. 1074f, 2001. (12) Department of Defense. *Implementation and Application of Joint Medical Surveillance for Deployments*. DoD Instruction 6490.3. 1997. (13) Gostin LO. *Public Health Law and Ethics: A Reader*. Berkeley: University of California Press, 2002. (14) Puglisi J. *Engagement of Institutions in Research*. Rockville, Md: Office for Protection from Research Risks. Memorandum, 26 January 1999. Available at: <http://ohrp.osophs.dhhs.gov/humansubjects/assurance/engage.htm>. Accessed: 23 October 2002. (15) US Army Research Institute of Environmental Medicine. *Human Research (USARIEM-M-70-25 M)*. Natick, Mass. 13 November 2001; Date updated: 2 October 2002. (16) Council of State and Territorial Epidemiologists. *Definition of Public Health Research [Position Statement 1996-08]*. Available at: <http://www.cste.org.ps/1996/1996-08.htm>. Accessed: 23 October 2002. (17) *HIPAA Regulations Regarding Public Health Information*, 45 CFR 164.512 2002. (18) Fleming DW, Deputy Director for Science and Public Health. *CDC Efforts to Protect Human Subjects Participants* (memorandum to Centers/Institute/Offices and CDC Partners). Atlanta, Ga: US Public Health Service, Centers for Disease Control and Prevention. 1 June 2001. (19) Levine RJ. *External Review Recommendation: Final Report of the External Review Group to the CDC*. Atlanta, Ga: US Public Health Service, Centers for Disease Control and Prevention; 2000.

Exhibit adapted with permission from Amoroso PJ, Middaugh JP. Research vs. public health practice: When does a study require IRB review? *Prev Med*. 2003(36):250–253.

who may have diminished autonomy. A prospective volunteer should be given all significant information concerning a study's purpose, plan, risks, benefits, time commitment, and measurements in language that he or she can understand. A person must be allowed to make an unpressured, independent decision whether or not to participate in the study. Undue incentives, withholding information concerning risks, the use of deception, or use of jargon are contrary to respect for an individual's autonomy (Exhibit 19-2).

Special considerations are given to vulnerable populations who have diminished autonomy such as mental patients, children, the severely ill, and people with severely limited liberty, such as prisoners. Should soldiers, sailors, and airmen also be considered "vulnerable"? From the beginning of their military indoctrination, they learn to follow the lawful orders of individuals of higher rank. Individuals who typically conduct informed consent briefings for military research tend to be of higher rank or have the title of doctor. There is concern, therefore, that this disparity in rank may inadvertently and unintentionally intimidate those being asked to participate. Therefore, great care must be taken to avoid unintentional coercion and to carefully monitor the informed consent process.

Enlisting in the armed forces does not entail a forfeiture of rights or the loss of one's ability to make sound decisions. If individuals are entrusted to help defend their country, then their ability to make sound decisions as to whether or not they

should participate in military research should be trusted. They have full freedom to make autonomous decisions regarding research participation, even when their full time job is "research volunteer," as is true for some soldiers at the SSB COM in Natick, Massachusetts and elsewhere (Figure 19-4).

**Beneficence.** The second basic principle outlined in the *Belmont Report* is beneficence. Beneficence is the ethical principle of caring for the welfare of research subjects. It means causing no harm to the subject while at the same time maximizing the benefits of the research and minimizing the risks. Assessing the risks and benefits of the research project is an application of the principle of beneficence. No one should be asked to participate in research that is likely to have little or no benefit. Likewise, no one should be subjected to the possibility of extreme harm even if great benefit from the research is possible, at least not before all the risks are clearly explained and the person has had ample time to fully understand the risks. Is the benefit to society of greater importance than protecting an individual member of that society? Today most ethicists agree that it is imperative to protect the individual from harm even if society as a whole may benefit from the research. A unique question for the military is whether being at war should alter how risks and benefits are viewed. Does the need to protect the individual outweigh achieving potential benefit from research that may be critical to the war effort? Soldiers are placed at greater risk as part of their daily activities than during peacetime because be-

## EXHIBIT 19-2

### THE ELEMENTS OF INFORMED CONSENT

Federal regulations (45 CFR 46.116) state that investigators must obtain informed consent from all human subject volunteers enrolled in research studies. The regulations make explicit some rules that should be followed in the process of obtaining informed consent. For example, caution must be exercised so that the volunteer is not coerced or given undue incentives to participate, and information about the study is to be communicated to the participant in language that he or she can understand. In addition, several basic principles that should be included in or addressed in the statement of informed consent are presented. Under certain circumstances, which are outlined in the regulations, the institutional review board (IRB) may waive some of these requirements, but, in principle, an informed consent document should address the following points.

1. A statement that the study involves research; an explanation of the purpose of the research; a description of procedures to be followed and identification of which procedures are investigational and which might be provided as standard care to the participant in another setting. Use of research methods such as randomization and placebo controls should be explained.
2. A description of any foreseeable risks or discomforts to the participant, an estimate of their likelihood, and a description of what steps will be taken to prevent or minimize them; as well as acknowledgment of potentially unforeseeable risks.
3. A description of any benefits to the participant or to others that may reasonably be expected from the research, and an estimate of their likelihood.
4. A disclosure of any appropriate alternative procedures or courses of treatment that might be advantageous to the participant.
5. A statement describing to what extent records will be kept confidential, including examples of who may have access to research records.
6. For research involving more than minimal risk, an explanation and description of any compensation and any medical treatments that are available if participants are injured through participation, where further information can be obtained, and whom to contact in the event of research-related injury.
7. An explanation of whom to contact for answers to questions about the research and the research participant's rights (including the name and phone number of the principal investigator).
8. A statement that research is voluntary and that refusal to participate or a decision to withdraw at any time will involve no penalty or loss of benefits to which the participant is otherwise entitled.
9. If the participant is or may become pregnant, a statement that the particular treatment or procedure may involve risks, foreseeable or currently unforeseeable, to the participant, or to the embryo or fetus.
10. A description of circumstances in which the participant's participation may be terminated by the investigator without the participant's consent.
11. Any costs to the participant that may result from participation in the research.
12. The possible consequences of a participant's decision to withdraw from the research and procedures for orderly termination of participation.
13. A statement that the investigator will notify participants of any significant new findings developed during the course of the study that may affect them and influence their willingness to continue participation.
14. The approximate number of participants involved in the study.

Informed consent should be documented in a statement indicating that the participant is making a decision whether or not to participate, and that his/her signature indicates that he/she has decided to participate having read and discussed the information presented.

ing in a war zone inherently increases a person's risk of harm. Should this affect the risk/benefit ratio? These are all difficult ethical questions.

**Justice.** The third basic principle addressed in the *Belmont Report* is justice. The principle of justice means that the burdens of the research as well as





**Fig. 19-4.** Investigators in a 1958 study at the Natick Labs attempt to determine how much heat stress is caused by requiring soldiers to wear a protective mask. From its inception, the research program at Natick sought to adhere to ethical guidelines by obtaining informed consent from its volunteer subjects. Photograph: Courtesy of US Army Research Institute of Environmental Medicine, Natick, Massachusetts.

the benefits of the research are shared by the same population. Under the principle of justice, for example, soldier-volunteer testing of the moisture vapor transfer properties of newly designed chemical protective uniforms in the heat is considered appropriate. There are numerous environmental and battlefield conditions that soldiers will be subjected to whereas these conditions rarely apply to civilian workers.

The principle of justice also pertains to issues of gender and race. Historically, test subjects for military research were almost entirely male. This may have been appropriate when the role of women in the services was minimal, but it would clearly be inappropriate now that women comprise a significant and increasing proportion of the active forces. Finding a balance between risk and benefit in human research is often more complicated than it would appear initially. Exclusion of women from physiological testing was fairly common even into the early 1990s because of both assumed and actual confounding factors related to hormonal cycles. In order to achieve sufficient statistical power to compare results between gender-specific subgroups, tests that include women might require a much larger test population. This might result in substantially greater costs, make studies more logistically

complicated (as certain testing may have to be done in a particular phase of the menstrual cycle), and therefore take longer to complete. Caution is also warranted if the research protocol might expose a fetus to potential harms of high or low body temperature, hypoxia, vaccines, drugs, or any of the other physiological or psychological stresses endured by research participants. Investigators must carefully consider whether any of these factors represent sufficient cause to exclude women from research studies.

The racial composition of the volunteer pool is important for similar reasons. Although the differences between racial groups in terms of genetics, physiology, and lifestyle may be less pronounced than the differences between genders, there are nonetheless important differences, and research studies must take this variability among racial or ethnic subgroups into consideration. Guidelines for federally funded research now include provisions designed to prevent the arbitrary exclusion of women and minorities from research. It should be noted that this issue runs beyond the fair distribution of research risks. If some groups are excluded from the research subject pool, then treatments that are uniquely beneficial to them will never be developed. A hypothetical example would be a randomized trial of a promising new treatment for hypertension. If the drug were in fact safe and effective for pregnant women but the study excluded pregnant women, the efficacy of this drug for controlling hypertension in pregnancy might never be known.

How subjects are selected for research is also a direct application of the principle of justice. In the Army and the Navy, the majority of subjects for more-than-minimal-risk research are enlisted personnel. The Air Force has typically used a mix of officer and enlisted personnel for their human research. Is it ethical for enlisted members to bear the burden of research that will benefit all military members? One reason the Army primarily uses enlisted members might be that it is easier for enlisted members to be released from other duties to participate in research. Another reason is that many studies are limited to soldiers aged 18 to 35 in order to reduce risks of high-intensity exercise among an older population. In those instances where a research protocol specifically requires the participation of soldiers over 40, special efforts may be needed to recruit these higher-ranking soldiers. Should rank be a consideration for the military in applying the principle of justice? Although limit-

ing the age of the volunteers has an indirect consequence of precluding participation of certain age or rank subgroups, this may be appropriate when the beneficiaries of the research are in fact from the same subgroup as the volunteers.

### **The Common Rule**

The Common Rule is the federal policy on human experimentation. Before adoption of the Common Rule, each federal agency that conducted re-

## **EXHIBIT 19-3**

### **DoD POINTS OF CONTACT FOR MULTIPLE PROJECT ASSURANCES**

---

#### **Department of the Army**

US Army Health Services Command (USAHSC)  
Clinical Investigation Regulatory Office (CIRO)  
Health Care Studies and Clinical Investigation Directorate, HSHN - I  
Army Medical Department Center and School (AMEDD C&S)  
Fort Sam Houston, TX 78234-6100  
Phone (210) 221-2511 or 0628; DSN 471-2511 or 0628

US Army Medical Research and Development Command (USAMRDC)  
Commander, U.S. Army Medical Research and Development Command  
ATTN: Human Use Review and Regulatory Affairs Office (HURRAO), SGRD - HR  
Fort Detrick, MD 21702 - 5012  
Phone (301) 619-2165; DSN 343-2165

#### **Department of the Navy**

Naval Health Sciences Education and Training Command (HSETC)  
Commanding Officer, Naval Health Sciences Education and Training Command  
ATTN: Code 2MC  
Bethesda, MD 20889 - 5022  
Phone (301)295-5769; DSN 295-5769

Naval Medical Research and Development Command (NMRDC)  
Commanding Officer, Naval Medical Research and Development Command  
National Naval Medical Center  
Bethesda, MD 20889 - 5606  
Phone (301)295-0287 DSN 295-0287

#### **Department of the Air Force**

Clinical Investigations and Life Sciences Division  
Headquarters Air Force Medical Operations Agency (HQAFAOA/SGPT)  
Office of the Air Force Surgeon General  
170 Luke Avenue, Suite 400  
Bolling AFB, DC 20332 - 5113  
Phone (202) 767-5078; DSN 297-5078

#### **Uniformed Services University of the Health Sciences**

President, Uniformed Services University of Health Sciences  
ATTN: Executive Secretary (for Human Use Review Committee)  
Bethesda, MD 20814 - 4799  
Phone (301) 295-3303; DSN 295-3303

#### **Office of the Chief of Naval Research (OCNR)**

Chief of Naval Research  
Ballston Center Tower 1  
800 North Quincy Street  
Arlington, VA 22217-5660  
Phone (703) 696-4767; DSN 224-4767

search using humans had its own guidelines, rules, and regulations governing the research. On 9 November 1978, Congress declared that all 16 federal departments and agencies would adopt the Common Rule as a common core regulation on use of human subjects in research. The Common Rule did not ultimately take effect until 19 August 1991. The Common Rule became part of the specific Code of Federal Regulations for the various departments and agencies. For example, it is Title 45, Code of Federal Regulations (CFR), Part 46 (or 45 CFR 46) for the Department of Health and Human Services' (DHHS) version of the Common Rule. The DoD's codification of the Common Rule can be found in Title 32, Code of Federal Regulations, Part 219 (32 CFR 219), and is essentially the same as 45 CFR part 46 subpart A (the variations pertain to the specific agency identifiers in the Code). This means that the exact same rules that apply to patients or students who are subjects of federally funded research in hospitals and universities also apply to soldiers, sailors, and airmen who are the subjects of military research, although the DoD has added some further restrictions. The Director, Environmental and Life Sciences, Office of the Director, Defense Research and Engineering, Department of Defense, holds the responsibility for ensuring DoD compliance with 32 CFR 219.

### **Assurances**

Every military institute or military agency that is engaged in human research is required to provide to their Surgeon General written assurance that the institute will comply with 32 CFR 219 in its conduct of human research (Exhibit 19-3). These assurances are commonly referred to as Multiple Project Assurances (MPAs), Single Project Assurances (SPAs), or Cooperative Project Assurances (CPAs). An assurance formalizes an institution's commitment to protect human subjects. The requirement to file an assurance is incumbent upon both the "awardee" institution and collaborating "performance site" institutions. According to materials provided by the US Department of Health and Hu-

man Services, under the Common Rule Section 102(f), awardees and their collaborating institutions become "engaged" in human subject research whenever "an investigator (whether professional or student) conducting research obtains (1) Data through intervention or interaction with the individual, or (2) Identifiable private information."<sup>31</sup>

MPAs are granted to agencies that have a research mission that includes use of human subjects; MPAs are typically granted to an institution for a period of 5 years. SPAs are granted to agencies conducting only one human use investigation or by agencies that are new to human research and will be eligible for an MPA after they have been granted a number of SPAs.

The requirement that every military institute or laboratory that conducts human research obtain its own MPA is stated in a memorandum dated 10 June 1993 from the Office of the Secretary of Defense. "Commencing with all proposals initiated on or after 1 June 1993, all DoD Components conducting human subjects research shall institute a DoD assurance of compliance model as required by 32 CFR 219."<sup>32</sup>

Research conducted at military installations but funded by the DHHS requires separate assurances. These assurances are filed with the Office for Human Research Protections (OHRP) of the National Institutes of Health (NIH). Until 28 February 2001, these assurances took a parallel form to those described above (eg, SPAs, MPAs). After that date, in order to simplify the process, OHRP began granting Federalwide Assurances (FWAs). Each legally separate institution (ie, awardee institutions and collaborating performance organizations) must obtain its own FWA. These assurances are no longer limited only to DHHS-supported research, to special categories of research, or to individual research projects, but are meant to cover all the research conducted by an institution that receives federal funding. Existing MPAs and CPAs will remain in effect through their current expiration date, or 31 December 2003 (whichever comes first). SPAs will remain in effect through the expiration of their respective grant or contract award and any noncompetitive continuation.

### **USE OF DATA OBTAINED WITHOUT CONSENT**

Sometimes data are found to be useful for other purposes well after the initial time of data collection. For example, suppose a survey collects information on sleeping habits, and it is subsequently learned that fatigue may place individuals at particular risk for certain health outcomes or of making costly mistakes on the job. The volunteers who

completed the survey agreed to provide the information based on a certain research purpose that was articulated to them by the investigators during their informed consent briefing. The investigators would now like to use these data for a new purpose. Do the volunteers need to consent to the use of that data for the new purpose? What if they cannot be

reached to provide consent, or if their sheer numbers makes it impractical to contact them all? There are some general exceptions to the rule of informed consent for the use of existing data. The IRB must consider the content of the original consent form, the objectives of the original data collection effort, any potential to cause harm to the individuals who provided it, and any assurances that may have been made to them at the time they provided the information. For example, if survey respondents are told explicitly that the information provided in this survey will be used only to provide them immediate feedback on their health and will not be divulged to outside individuals for any purposes, it is unlikely an IRB would approve release of the data without consent, however great its value for research purposes.

A different set of circumstances occurs with data that have gained significance due to scientific developments. For instance, the military has been collecting blood samples from service members for

years for the purposes of identifying remains, determining historical exposures to infectious diseases, and for serologic testing for human immunodeficiency virus (HIV) infection. Millions of these samples now exist in deep freeze and are viewed by many researchers as a valuable repository of serologic data for a multitude of studies of infectious disease epidemiology, injury prevention, and other research areas. Although the buffy coat from these specimens (ie, the fraction containing the cells) is discarded, it may nonetheless be possible to recover sufficient DNA (deoxyribonucleic acid) from these samples to allow genetic testing of millions of current and former service members. As technology improves and the methodology to accomplish this becomes available, how will the rights of these individuals be protected? What are the issues? Who decides who gets access? These questions involve the exploration of many ethical issues, both now and in the future as technological advances open more research areas for consideration.

## ETHICAL CONSIDERATIONS FOR EPIDEMIOLOGICAL STUDIES

Epidemiology is the study of the distribution and determinants of health-related states or events in specified populations, and the application of this study to the control of health problems. In the past century, epidemiology has been credited with many important advances in the understanding of human health and disease. Some of the knowledge gained through epidemiological studies has been applied to the control of environmental and biological threats to health, such as diseases due to bacterial contamination of drinking water. Epidemiological studies are also primarily responsible for current thinking regarding the health effects of tobacco, the importance of diet and exercise in relation to preventing heart disease, and the use of automobile seat belts to reduce the risk of injury or death during a crash. Although traditional medical research may involve intrusions into a person's body, perhaps to obtain blood samples or tissue biopsies or to administer an investigational new drug, epidemiological research generally involves less invasive methods such as interviews, records reviews, or the statistical analysis of large medical databases. Ethical considerations for epidemiological research are well described in the 1991 International Guidelines for Ethical Review of Epidemiological Studies (see the attachment following the chapter). Because many of the issues are common to all human research, only the key points will be summarized in this section.

Epidemiological research is of two main types:

(1) observational and (2) experimental. Observational studies include (a) cross-sectional studies, (b) case-control studies, and (c) cohort studies, all of which generally involve minimal risk to study subjects. They may involve no intervention other than asking questions, or reviewing reports of medical, laboratory, or radiograph examinations.

A cross-sectional study is commonly done on a random sample of a population. Study subjects may be asked questions or given a survey questionnaire, medically examined, or asked to submit to laboratory tests. The aim is to assess aspects of the health of a population, or to test hypotheses about possible causes of disease or suspected risk factors.

A case-control study compares the past history of exposure to risk among patients who have a specified condition (cases) with the past history of exposure to this risk among persons who resemble the cases in such respects as age and sex, but do not have the specified condition (controls). Differing frequency of past exposure among cases and controls can be statistically analyzed to test hypotheses about causes or risk factors. Case-control studies are advantageous when testing hypotheses about rare conditions, because they can be done with small numbers of cases. They generally do not involve invasion of privacy or violation of confidentiality. If a case-control study requires direct contact between research workers and study subjects, informed consent to participate in the study



is required; if it entails only a review of medical records, informed consent may not be required and indeed may not be feasible.

In a cohort study, also known as a longitudinal or prospective study, individuals with differing exposure levels to putative risk factors are identified and observed over a period, commonly years, and the rates of occurrence of the condition of interest are measured and compared in relation to exposure levels. The number of subjects may be very large, perhaps even in the millions, so it may be impracticable to obtain informed consent from all participants. It is essential to identify precisely every individual studied; this is often achieved by methods of matching that are built into record linkage systems. Once identities have been established to perform data linkage, personal identifying information can be removed, thereby safeguarding privacy and confidentiality. An example of a well-designed study of this type is the Millennium Cohort Study,<sup>33</sup> a 21-year prospective study of the health of US military forces. This study will enroll approximately 140,000 current and former service members, who will give informed consent to their participation, and who will complete periodic surveys asking questions about their health status. Their survey responses may also be linked to existing records that have been or will be collected by the DoD or the Department of Veterans Affairs. Investigators have pioneered methods to allow informed consent to be obtained and data collection to be accomplished using the World Wide Web.

An experiment is a study in which the investigator intentionally alters one or more factors under

controlled conditions to study the effects of doing so. The usual form of epidemiological experiment is the randomized controlled trial, which is done to test a preventive or therapeutic regimen or diagnostic procedure. In order to be regarded as ethical, such experiments involving human subjects should be conducted only if there is genuine uncertainty about the regimen or procedure and this uncertainty can be clarified by the proposed research.

In this form of experiment, subjects are typically assigned at random to receive or not receive the intervention being tested. The experiment compares the outcomes in the two groups. Random allocation of volunteers removes the effects of bias, which would compromise the validity of comparisons between the groups. Informed consent of participants is essential, because it is possible that some harm may befall the subjects.

As in many other fields of biomedical and behavioral research, epidemiology is facing a host of new ethical challenges. Research using very large databases can now capitalize on efficient methods for storage, retrieval, and analysis of information. The combination of powerful computers, advanced statistical techniques, and medical domain knowledge has created exciting new opportunities for epidemiological investigation. Statistical techniques that were until recently too complex even for main-frame computers can now be carried out on the desktop. However, whenever new research opportunities present themselves, careful review is essential to ensure that ethical problems do not arise unexpectedly, and to be sure that the ethical rights of human subjects are protected vigilantly.

## **ETHICAL PRINCIPLES APPLIED TO EPIDEMIOLOGY**

There are a number of ethical principles that must be adhered to in the course of epidemiological research. These include issues pertaining to individual informed consent, community informed "consent," communication of study results, harms and wrongs, social mores, confidentiality, and conflict of interest. Each will be separately addressed.

### **Individual Informed Consent**

Except in certain circumstances, informed consent is usually sought from individuals who will be subjects of epidemiological studies, at the time of their enrollment into the study. An investigator who does not plan to seek informed consent must justify this proposal to his or her IRB and be granted a waiver. An IRB may waive the requirement for

informed consent if it would be impractical to locate subjects whose records are to be examined, or if obtaining informed consent would undermine the purpose of the study. The IRB may grant such a waiver if, for example, prospective subjects would likely change the behavior of interest if they were informed about the purpose of the research, or if they might feel needlessly anxious about why they were subjects or study controls.

For epidemiological studies using existing data that are personally identifiable, the rules for informed consent vary. Optimally, individuals should be informed that data such as occupational records, medical records, or tissue samples are to be used in research, and what steps will be taken to protect their confidentiality. Even though it may seem that use of existing data may cause no additional harm

to the study subjects, the inappropriate disclosure of such personally sensitive information may have an impact on them, and they should optimally have the right to decline to participate in such research. Consent is not required for use of publicly available information, and definitions vary with regard to what information about service members is regarded as public.

Some organizations and government agencies employ epidemiologists who may be permitted by regulation to have access to data without subjects' consent. Access may be ethical on such grounds as minimal risk of harm to individuals, public benefit, and investigators' protection of the confidentiality of the individuals whose data they study. Medical surveillance of injuries and illness for managing medical care needs of service members might be a good example of this.

### **Community Informed "Consent"**

When it is not possible to obtain informed consent from every individual in the subject pool, the agreement of a representative of the community or group may be sought. In designating a representative of a community or group, consideration should be given to the nature, traditions, and political philosophy of the community or group. Representatives may sometimes participate in designing the study and in the assessment of the ethical issues and problems in its design. Large prospective studies of military service members will sometimes enlist members of veteran's service organizations to serve on scientific steering committees in order to represent the interests of the population under study.<sup>33</sup>

### **Communication of Study Results**

Part of the benefit that communities, groups, and individuals may reasonably expect from participating in studies is that they will be notified of study findings, both those that pertain to their health individually, and those that stand to improve the health of the larger community to which they belong. Research protocols should include provisions for communicating such information to communities and individuals, giving careful consideration to the literacy levels and comprehension ability of the audience. Participants in epidemiological studies should, however, be advised that it may not always be possible to inform them about findings that pertain to their health as individuals, but that they should not take this to mean that they are free of the disease or condition under study. Although it is not always possible to extract information per-

taining to individuals and their families from pooled data, when findings do indicate that a study subject is in imminent need of health care, he or she should be advised to seek diagnosis and advice from a personal physician.

### **Harms and Wrongs**

Ethical review must always assess the risk that any subjects might suffer stigmatization, prejudice, loss of prestige or self-esteem, or economic consequences as a result of taking part in a study. Investigators must inform IRBs and prospective subjects of perceived risks, and of methods to prevent or mitigate them. Investigators must be able to demonstrate that the benefits outweigh the risks for these individuals. There should be a thorough analysis to determine who would be at risk and who would benefit from the study. It is unethical to expose persons to avoidable risks disproportionate to the expected benefits, or to permit a known risk to remain if it can be avoided or at least minimized. A distinction can be made between causing harm and wronging an individual. In order for an individual to be harmed there must first be a breach of confidentiality. On the other hand, using data on an individual without that person's consent, even when the individual cannot be identified, wrongs the individual by invading his or her privacy or using him or her as a means to an end without permission. There may be times, such as when consent cannot be obtained, in which the public interest in conducting the research outweighs such wrongs to the subject. For such research to be approved, however, confidentiality must be assured, consent must be impractical or impossible, and the research must be of sufficient import.

Epidemiological studies, due to their population focus, have the potential to inadvertently cause harm to groups as well as individuals. These harms might come in the form of economic loss, stigmatization, blame, or withdrawal of services. Investigators who find sensitive information that may put a group at risk of adverse criticism or treatment should be discreet in communicating and explaining their findings. When the location or circumstances of a study are important to understanding the results, the investigators should explain by what means they propose to protect the group from harm or disadvantage. Such means include provisions for confidentiality and the use of language that does not imply moral criticism of subjects' behavior. In the military setting a study looking at risk factors for injury or longevity in service that identify high-risk subgroups might illustrate the point. For example, studies that

demonstrate that women with low physical fitness rarely complete basic training, or that soldiers who live in barracks and drink heavily are at significantly higher risk of assault injury might pose such ethical dilemmas. On the one hand, if the study results are used to design interventions that assist women of low physical fitness to become better prepared for basic training or that help soldiers at risk of assault to reduce alcohol intake, the result may be perceived as positive. On the other hand, if fitness is used as a selection criterion for entrance to the military, or if soldiers in the barracks are subjected to legal interventions to prevent consumption of alcohol, these could be considered harms.

### Respect for Social Mores

Disregard of the social mores of the participant's group is usually regarded as harmful. Although cultural values and social mores must be respected, it may be a specific aim of an epidemiological study to stimulate change in certain customs or conventional behavior to encourage adoption of more healthful behavior, for instance, with regard to physical conditioning or risk taking. It is a reasonable assumption that many who join the military are less risk averse than their civilian counterparts. Research that suggests reductions in costly injuries can be achieved by altering the risk-taking behavior of individuals may run counter to the military culture. Although members of communities have a right not to have others impose an uninvited "good" on them, studies expected to result in health benefits are usually considered ethically acceptable and not harmful. It is the role of the IRB to consider a study's potential for beneficial change as well as potential unintended consequences.

### Confidentiality

Research may involve collecting and storing data relating to individuals and groups, and such data, if disclosed to third parties, may cause harm or distress. Consequently, investigators should make arrangements for protecting the confidentiality of such data by, for example, omitting information that might lead to the identification of individual subjects, or limiting access to the data, or by other means. It is customary in epidemiology to aggregate results so that individual identities are obscured. Where group confidentiality cannot be maintained or is violated, the investigators should take steps to maintain or restore a group's good name and status. Information obtained about subjects is generally divided into:

- *Unlinked information*, which cannot be linked, associated, or connected with the person to whom it refers. Because specific individuals are not known to the investigator, confidentiality is not at stake and the question of consent rarely arises. Under the Common Rule, this type of research is generally considered exempt.
- *Linked information*, which may be anonymous (the information cannot be linked to a particular study subject except by a code or other means known only to that person, rendering it impossible for the investigator to discover the identity of a particular study subject); non-nominal (the information can be linked to the person by a code, not including personal identification, known to both the study subject and the investigator); and nominal (the information is linked to the person by a personal identifier, usually a name).

Epidemiologists typically discard personal identifying information when consolidating data for purposes of statistical analysis. Personally identifiable data should not be retained in the data sets used for statistical analyses if the analyses could be accomplished without having that information present. When personal identifiers remain in records used for a study, investigators should justify this practice to their IRB and explain how confidentiality will be protected. Even when investigators link different sets of personally identifiable data with the informed consent of the individual subjects, they normally preserve confidentiality by aggregating individual data into tables or diagrams. In government service the obligation to protect confidentiality is frequently reinforced by the practice of swearing employees to secrecy.

### Conflict of Interest

It is an ethical rule that investigators should have no undisclosed conflict of interest (such as a financial relationship) with their study collaborators, sponsors, or subjects. Investigators should disclose to the IRB any potential conflict of interest. Conflict may arise if a commercial entity sponsors a study and then wishes to use study results in the promotion of a product or service, or if sponsors attempt to suppress results that run counter to their commercial interest. Investigators and IRBs should be sensitive to even the appearance of impropriety; many committees will reject proposals if there is a risk of conflict of interest.

## ETHICAL REVIEW PROCEDURES FOR EPIDEMIOLOGICAL STUDIES

Ethical review procedures for epidemiologic studies focus on three areas: (1) representation of the community, (2) assuring scientific integrity, and (3) control groups. Each will be discussed.

### Representation of the Community

The community to be studied should be represented in the ethical review process. This is consistent with respect for the culture, the dignity and self-reliance of the community, and the aim of achieving community members' full understanding of the study. A lack of formal education is not a sufficient reason to disqualify a community member from joining in constructive discussion on issues relating to the study and the application of its findings. Inviting community members to sit on IRBs evaluating research that affects them is one way to accomplish this. Military IRBs often have lay-person representation or service member representatives or both. Another way to accomplish community representation is to invite members of veteran's service organizations to sit on research advisory boards when they exist.

### Assuring Scientific Integrity

The primary functions of ethical review are to protect human subjects against risks of harm or wrong, and to facilitate beneficial studies. Scientific review and ethical review cannot be completely independent: a study that is scientifically unsound is unethical in exposing subjects to risk or inconvenience and achieving no benefit in knowledge. Normally, therefore, IRBs review both scientific and ethical issues inherent in the research protocols that come before it. An IRB may refer technical aspects of scientific review to a scientifically qualified person or committee, but must ultimately reach its own decision, based on such qualified advice.

### Control Groups

Epidemiological studies that require control (ie, comparison) or placebo (ie, nontreated) groups are governed by the same ethical standards as those that apply to clinical trials. (These are fully detailed in 1991 International Guidelines for Ethical Review of Epidemiological Studies, one of the attachments following the chapter.) Important principles are that<sup>34(§44)</sup>:

- (i) the control group in a study of a condition that can cause death, disability or serious distress should receive the most appropriate currently established therapy; and
- (ii) if a procedure being tested against controls is demonstrated to be superior, it should be offered promptly to members of the control group.

A study must be terminated immediately if the outcome in one group is clearly superior to that in the other, and then all subjects will be offered the better treatment. Additionally, "stopping rules" should be developed prior to the start of the study so there is a clear plan for determining, as soon as possible, whether one treatment or another is beneficial or harmful. As soon as that determination is made, both the study and control groups should be offered the better treatment.

Random allocation may also cause anxiety if persons become apprehensive or concerned about the reasons for their being chosen or excluded from the experimental regimen or procedure. Additionally, if it becomes apparent which soldiers are in the treatment group, volunteers assigned to the control group may not appreciate their importance to the study. This was a significant issue for a test of an outside-the-boot ankle brace for preventing ankle injuries among parachutists.<sup>35</sup> In this study volunteers could not be blinded as to which group they were assigned because the braces were clearly visible and it was necessary to instruct volunteers on proper wear. Some individuals assigned to the control group became less motivated to continue when they were not randomized to the brace group. Because their primary motivation to participate may have been to use the braces and because it was completely within their rights to drop out of the study whenever they choose, it was challenging to maintain the scientific integrity of the study and keep the treatment and control groups balanced. Investigators therefore must carefully communicate to members of the study population some basic concepts about the laws of chance, and reassure them that the process of random allocation is not discriminatory, and that all participants are equally important to the study. Some experiments will include the delivery of an alternate intervention to the control group (a so-called attention placebo) in order to maintain their motivation and interest in remaining in the study. Although such practices may be useful in maintaining balanced intervention and control groups, it is important to ensure that the attention placebo does not influence the variable under study in the control group.



## MILITARY REGULATIONS PERTAINING TO HUMAN RESEARCH

Military research that involves use of human subjects is thus subject to the same ethical principles and guidelines that govern use of human subjects in civilian research. The military has additional, unique regulations pertaining to human subjects research.

### Special Features of Military Regulations

Two provisions of the law that applies to DoD human research state, "Funds appropriated to the Department of Defense may not be used for research involving a human being as an experimental subject unless (1) the informed consent of the subject is obtained in advance; or (2) in the case of research intended to be beneficial to the subject, the informed consent of the subject or a legal representative of the subject is obtained in advance."<sup>36</sup> First enacted in 1972, this law was revised in June 1998.

Human research in a military setting is often more restrictive than in a civilian setting. Even though 32 CFR 219 is the same as subpart A of 45 CFR 46, each service has its own regulations that place additional restrictions on human subjects research. For example, Army regulations forbid testing involving prisoners of war and detainees; most military researchers interpret this as prohibition of testing using prisoners in any setting. Another example is that the services may do research involving children only if there is direct benefit to the child. The child is required to give assent in writing, if capable. In all cases a legally authorized representative must give fully informed voluntary consent in advance of the child's participation in the research.

Before any of the military services may use humans in the testing of equipment, even as "indirect objects" of research in minimal risk studies, the investigator must first get approval from an established IRB. This is true even if the test is as simple as wearing a new pair of laser protective goggles to see if they affect color recognition. Although the Common Rule permits exemption from full IRB review under certain circumstances, the investigator must nonetheless obtain a written letter of exemption from the IRB before proceeding.

Some types of equipment testing are automatically exempt such as test flights of new aircraft flown by test pilots. Evaluations of public behavior are exempt, as are evaluation of educational techniques. Some questionnaires qualify for exempt sta-

tus, although others do not. If the data collected cannot be traced to an individual and cannot harm a person psychologically, socially, or economically, then the use of the questionnaire is exempt. If the questionnaire can be linked to the person (even if the answers to the questions would be unlikely to cause harm if they became public) then the questionnaire must undergo IRB review along with the procedures for giving the questionnaire and for protecting the subject's privacy. If there is doubt as to whether or not a study protocol is exempt, the principal investigator must seek advice from the IRB chair who has accountability for the responsible institution. In cases where an institution does not have an IRB, consultation with a higher command is necessary. If need be, the office of the surgeon general of the individual service can be consulted directly.

Equipment studies may qualify for an exemption or an expedited review. Many of these would be human factors tests involving moderate exercise to test boots, uniforms, or other types of individual equipment. Expedited review applies only to research, tests, and evaluations that involve minimal risk to subjects. The condition of minimal risk is met only when the probability and magnitude of harm or discomfort anticipated in the proposed research are not greater, in and of themselves, than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests. In an expedited review, one or more committee members assigned by the chair reviews the research proposal and can approve it. If there are questions as to whether or not research is exempt, eligible for expedited review, or requires full committee review, the chair of the IRB is usually empowered to advise the investigator regarding the appropriate level of review required. If even one reviewer questions the exemption or expedited review then the proposal generally must go to through full IRB review.

Prior to, or concurrently with, human use review, research protocols must also undergo scientific review. Some institutions conduct scientific review separately from consideration of human use review, but the Common Rule states that the IRB is responsible for scientific quality even though they may defer scientific issues to a known authority on a given topic. Army protocols are reviewed by local review boards, which play the same role as IRBs in the private sector. If the research involves more than

minimal risk, the protocol is referred to the US Army Office of The Surgeon General's review board for additional review. Navy and Air Force protocols that are determined by local IRBs to be more than minimal risk are forwarded to a central office where one officer reviews them. An investigator cannot begin a study until all these committees have provided written approval of the research. The local commander can disapprove a study that has been approved by the local IRB, but cannot approve a protocol until it has first been reviewed and approved through the complete and appropriate IRB review process.

The military should also provide extra protections for human subject volunteers because of the Feres Doctrine, which prevents soldiers from suing the government. The original intent of this law was primarily to protect the DoD and military commanders from being sued by service members who were harmed subsequent to carrying out a lawful order, especially during battle. This law also effectively prevents military healthcare professionals from being sued for malpractice. The Feres doctrine has survived numerous legal challenges since its inception.<sup>37</sup>

DoD regulations state that research subjects should be protected from medical expenses that are the "direct result of participation in a protocol involving more than minimal risk."<sup>38</sup>(§5.3.4) Army regulations state that "volunteers are authorized all medical care for injury or disease that is a proximate result of their participation in research," and outline for provisions about how such care is to be administered and how the costs are to be managed.<sup>39</sup>(§3.1.k) The Navy also requires that arrangements be made for the provision of medical care to subjects who may be injured in the course of a protocol involving more than minimal risk, suggesting that this may be accomplished through limiting enrollment to persons who are already DoD healthcare beneficiaries or by administratively granting benefits to research participants who are not already covered as DoD healthcare beneficiaries.<sup>40</sup> It is noteworthy that none of these regulations make any specific provisions about injuries that participants may incur as a result of participation in protocols that involve no greater than minimal risk, given that such protocols constitute the majority of contemporary behavioral and biomedical research. The Veterans Administration revised their regulations in 1998 to include a blanket statement that the VA is obligated to provide medical treatment to subjects who are injured while participating in any protocol ap-

proved by the VA Research and Development Committee, provided that the injury did not occur as a result of noncompliance with study procedures on the part of the research subject or in research conducted for the VA by a non-VA subcontractor or institution.<sup>41</sup> Civilian universities and hospitals that conduct research with human subject participants are obviously not bound by these regulations, and their policies and practices concerning emergency treatment for research-related injuries are likely to vary widely.

### **Rules About Using Patient Records in Military Research**

Army policy dictates that the confidentiality of patient medical records must be protected to the fullest extent possible.

Patient medical information and medical records will be released only if authorized by law and regulation....Within DA, patient medical information and medical records may be used for diagnosis, treatment, and preventive care of patients. Patient medical information may also be used within DA to monitor the delivery of health care services, to conduct medical research, for medical education, to facilitate hospital accreditation, and for other official purposes....Unless otherwise authorized by law or regulation, no other person or organization will be granted access to patient medical information or medical records....Any person who, without proper authorization, discloses a patient's medical information or medical record may be subject to adverse administrative action or disciplinary proceedings.<sup>42</sup>(Subchap2-2)

Clerical and administrative personnel, such as secretaries, transcriptionists, and medical specialists, often see private medical information and medical records. This access is authorized and necessary for treatment facilities to properly process and maintain information and records. However, the treatment facility commanders must ensure that all persons with access to medical information or medical records are trained in their obligation to maintain the confidentiality and privacy of medical information and medical records. When medical information is officially requested for a use other than patient care, generally only the minimum amount of information needed to satisfy the request is given.

Concerns about confidentiality of medical records have recently led to the development of procedures for exchanging sensitive medical data while pre-

serving the patient's confidentiality. A recent Government Accounting Office (GAO) report describes several techniques such as signed consent forms, masked data sharing procedures, and secure data centers. Masked data sharing includes a number of possible strategies, such as third-party linkage.<sup>43</sup> Useful in multicenter studies, third-party linkage allows researchers to share only those portions of the patient's medical record that are relevant to the research question, and researchers agree to have a third-party intermediary encrypt and link data from the various research centers. Data sets processed in this manner contain only the information needed to conduct the analyses, and are stripped of any personal identifiers, making re-identification much more difficult. Other strategies to preserve data security and reduce the risk of re-identification include list inflation or grouped linkage. Although patients and their medical professionals should be vigilant in protecting the confidentiality of medical information, a variety of evolving technological solutions are available to alleviate these concerns while still allowing important research to go forward.

Army regulations make provisions for the use of patient medical records in research, but place some limitations on their use so as to protect patient confidentiality. "Qualified investigators may have access to Army medical records and biostatistical information for research and study,"<sup>42(Subchap2-8)</sup> subject to approval of the surgeon general. "Access may be granted to records in MTFs [Medical Treatment Facilities] and DTFs [Dental Treatment Facilities], Army record centers, and the facilities of the General Services Administration. Medical records used for research will not be removed from the MTF or DTF."<sup>42(Subchap2-8)</sup> The surgeons general of the individual military services must approve access to patient records under their control. Prior to release of medical records information for research purposes, the surgeon general must be provided with certification of the credentials of the investigator, a statement of the purpose of the research, and evidence of IRB approval. In addition, the investigator must agree in writing to following conditions<sup>42(Subchap2-8)</sup>:

- a. Information taken from Army medical records will be treated according to the ethics of the medical and dental profession.
- b. The identities of people mentioned in the records will not be divulged without their permission, and photographs of a person or of any exterior portion of his or her body will not be released without his or her consent.

- c. The researcher understands that permission to study the records does not imply approval of the project or field of study by The Surgeon General.
- d. All identifying entries about a person will be deleted from abstracts or reproduced copies of the records.
- e. Any published material or lectures on the particular project or study will contain the following statement: "The use of Army medical records in the preparation of this material is acknowledged, but it is not to be construed as implying official Department of the Army approval of the conclusions presented."

Recently, many new regulations have been issued on a national level to protect confidentiality of medical records information. The Health Insurance Portability and Accountability Act of 1996 ( )<sup>44</sup> authorizes the Secretary of Health and Human Services to issue regulations applicable to essentially the entire healthcare system of the United States, including the DoD. It will be incumbent upon the DoD to comply with HIPAA regulations when they become effective. Although HIPAA has a "public health carve out" designed to ensure continued use of medical records information in important public health surveillance initiatives, use of medical records for research purposes may become more difficult under these new medical record privacy regulations. As full implementation of these new rules is still underway, it may take a while before the entire impact of HIPAA on epidemiological research in particular is known.

### Special Ethical Problems in Military Research

Military researchers who work with human subjects are ethically bound to observe the same protections that civilian researchers must adhere to. There are, however, some special situations in military biomedical and behavioral research that pose ethical dilemmas that civilian researchers may never face. Researchers must be especially cognizant of the hierarchical nature of the military and be certain that it does not interfere with the process of informed voluntary consent. Military hierarchy also carries the potential for conflict between the IRB and the commander. Although both civilian and military researchers often offer incentives to participants in research trials, special care must be taken to ensure that incentives offered to military service members do not become inappropriate inducements. This section reviews these special quandaries that military researchers face.

### ***Dynamics of Military Rank***

The most obvious difference between civilian and military research involving human subjects centers around the dynamics of military rank. Does the difference between a private and a colonel influence the private's behavior toward the colonel? Of course it does. Soldiers of all ranks are taught to follow the lawful orders of their superiors. They are also taught that the key word is "lawful." If an order is unlawful then a soldier need not follow it. It is unlawful for superiors to order juniors to participate as subjects in research. Does rank influence the voluntary nature of informed consent? Even when the senior person does not give a direct order to the junior person, the senior person may still exert undue influence. Research has demonstrated that NCOs and officers can exert significant influence over a soldier's food preferences.<sup>45(p232)</sup> If rank can influence food preference and acceptance it may also influence whether a soldier will participate in a research study.

The final ACHRE Report recommends that no officers or NCOs from a soldier's chain of command be present during recruitment briefings.<sup>11</sup> This recommendation has been codified in DoD Directive 3216.2, at least with respect to research involving greater than minimal risk.<sup>38(S4.4.4)</sup> This directive recommends that if officers and NCOs are also offered the opportunity to participate in such research protocols, they should be solicited in separate recruitment briefings, so that their presence may not exert an unintended influence to participate over more junior soldiers. This may make volunteer recruiting even more difficult because unit leadership may develop distrust for the recruiting process if they are excluded from the recruitment briefings. Instead of encouraging their soldiers to volunteer, which the NBAC is trying to prevent, the unit leaders may encourage their soldiers not to volunteer, making it much more difficult to conduct vital military research. A better alternative may be to train officers and NCOs on ethical principles of human subjects research so that they are aware of the issues and understand the steps that are being taken to treat research subjects ethically. They can then participate in recruitment efforts and informed consent briefings, lending their support to these militarily important research programs while having confidence that the soldiers under their command will be well protected.

Does this make the junior enlisted soldier vulnerable? If soldiers are not informed about the vol-

untary nature of human research conducted by the DoD, they may not know that pressure to participate is not lawful. However, if enlisted personnel are educated about human use regulations and what their individual rights are, they are more likely to feel empowered to refuse to participate in studies. Soldiers have been trained to think on their own and be able to make decisions concerning themselves and their unit's welfare. Leadership training is even given to new recruits during Basic and Advanced Individual Training by having them assume team leader and squad leader positions.

The investigator must establish a friendly, professional demeanor during the informed consent briefing, explaining scientific and medical terms to volunteers in common language without talking down to the volunteers. The investigator should foster an atmosphere of mutual respect, putting the volunteer at ease, so a partnership can be developed. If this briefing is done properly, junior enlisted service members can feel comfortable enough to pose questions to senior officer investigators. It is required that a witness who is not connected to the research group be present, to ensure fully voluntary and informed consent. Another enhancement to insure the voluntary nature of the process is to have the consent forms given back to the impartial witness (either blank or signed) a day after the informed consent briefing. The witness then contacts the investigator to let him or her know who signed up for the study. All of these measures are intended to create a setting where the volunteer feels free to say no.

### ***Pressure to Participate***

Other groups of potentially vulnerable subjects include members of elite units such as the Rangers, SEALs (Sea, Air, and Land forces), or Special Forces, and individuals who work for or with the investigators themselves. In the case of Special Forces personnel, there may be enormous pressure on unit members to participate in a study as part of their unit. Esprit de corps may make it extremely difficult to avoid coercion, especially given that some of these units do not do anything unless the whole unit participates. It would be very difficult for one member of a Special Forces "A" team, for example, to choose not to participate if every one else on the team is participating. The DoD acknowledges the intensity of these dynamics of peer pressure, and stipulates in cases when the recruitment strategy for a particular research protocol hinges upon the



enrollment of a percentage of the unit, an ombudsman must be present during the recruitment briefing, to ensure that the individual voluntary participation of each participant is emphasized.<sup>38</sup>(§4.4.4) To ensure objectivity, this ombudsman cannot have any connection with the research team or with the unit.

Similar dilemmas arise in some foreign cultures where all decisions are made by the tribal leader or elder. This issue can pose particular challenges for US-based IRBs that attempt to review the ethical conduct of research that will take place in another country with a different culture. Whose rules should apply? Is it presumptuous to automatically impose American morals and standards on the conduct of an autonomous group of potential volunteers in a foreign land? This is a particularly important issue because many civilian research experiments are now “exported” to foreign lands where rules of conduct are more favorable, either allowing research to be conducted that would not be possible in the United States or allowing it to be conducted at much less cost. Although the US military may also conduct research on foreign soil, these studies are subject to the same regulations used in the United States. Enforcement of ethical guidelines in the case of privately funded research may be much more difficult, however. Many corporations have subsidiaries in foreign countries that can fund and conduct studies where the rules may be far less restrictive.

In military research using soldier-volunteers, the investigator has a responsibility to brief the unit commanders on the definition of volunteer as spelled out in the appropriate regulation.<sup>39</sup> It is the responsibility of both the commander and the investigator to ensure that soldiers participating in research are truly volunteers. This becomes especially important in the military culture, where junior soldiers are accustomed to receiving orders from the top and then executing all instructions. The notion of a volunteer soldier may at first run counter to this culture. Special care must be taken to ensure that this culture does not impinge upon the process of obtaining voluntary informed consent.

It is recommended that an investigator briefs a larger group of soldiers than is actually needed to do the study. It is possible to order service members to attend a briefing, but not to order them to volunteer. If 10 volunteers are needed, briefing an entire company results in less pressure on any individual volunteer. In this way individual soldiers will not feel as though they must participate, allowing the investigator to recruit enough subjects. This

may also mean that the investigator will get more volunteers than necessary for the study, but developing a fair way to select volunteers for inclusion is easier and more ethical than using soldiers who have volunteered under pressure. Thus, there are many ways, even in a military setting, to guarantee that military subjects are indeed true volunteers.

### ***Vulnerable Participants***

Vulnerable individuals presumably need additional protection in research. A designation of vulnerability can, however, be either useful or potentially harmful. Although certain individuals and populations may be more vulnerable as human subject volunteers than others, people whose circumstances render them vulnerable have at times been arbitrarily excluded from research for this reason alone. Certain individuals have been considered more open to harm (eg, children, the mentally retarded), more subject to coercion (eg, prisoners), more “complicated” (eg, women, who may be considered more biologically complicated than men), or more inconvenient (eg, women with small children, who could be viewed as less reliable research participants due to conflicting demands on time). Labeling otherwise competent people “vulnerable” can be both insulting and misleading. It is not their gender or other group designation that exposes them to injury or coercion, but rather their situation that can be exploited by ethically unacceptable research. That is, it is their circumstances, which are situational, that create the vulnerability.<sup>46</sup>

Probably the most vulnerable group of volunteers consists of seriously ill people volunteering for a study that might help improve their prognosis. This group of subjects is not listed as a vulnerable category, perhaps because it is their illness that makes them candidates for such a study. Doctors have a major influence in persuading these patients to participate in research. The Advisory Committee on Human Radiation Experiments conducted a study on why patients volunteer for research, and found that 67% volunteered because they believed they would get better treatment by participating in research and that 7% said they participated because it was their only hope.<sup>11</sup> Some patients who were interviewed by the committee said that they trusted their doctors implicitly and would do whatever was recommended. “Oh, I love that man. He has kept me alive and I obey him and I do what he tells me to do.”<sup>11</sup>(p740) Of the group surveyed, 10% had decided not to participate in the research.<sup>11</sup> Of those who did

participate in the research, fewer than 2% reported that they felt pressured to volunteer.<sup>11</sup> The argument can be made, however, that these people were a vulnerable population even though they may not have realized it. It also shows the enormous trust placed in the medical profession and is a reminder that doctors should be conscious that their stature in the eyes of their patients may exert undue influence in the process of obtaining informed consent.

### *Participation of Members of the Research Team*

In the military setting, and perhaps also in civilian settings, colleagues, members of the research team, and occasionally even the investigators themselves will volunteer to participate in the research. This has the potential benefit of allowing study personnel to gain firsthand experience of what it feels like to be a research volunteer. Caution is warranted in these circumstances, however, because an individual may be inadvertently or subtly subjected to pressure to volunteer. This risk is especially true if it turns out to be difficult to recruit volunteers, whether for administrative reasons or because of the arduous nature of a particular study. A recent tragic example of this issue occurred in the summer of 2001 at Johns Hopkins University. A 24-year-old healthy woman who was employed in one of the laboratories volunteered as a research participant in an asthma trial but died as a result of complications from the treatment protocol.<sup>47</sup> This case sparked an intensive investigation and received widespread media attention. One of the criticisms that was leveled at the investigator and the university charged that she may have been subtly and inappropriately pressured by her employer or by her colleagues to participate in the experiment.<sup>47</sup>

### *Incentives to Participate*

Incentives are important variables in this equation of a subject's decision whether or not to participate in a study. Incentives may be tangible or intangible. Tangible incentives for military service members might be monetary such as environmental stress pay or payment for blood draws. Sometimes individuals must travel in order to participate in research; special allowances for per diem given to military volunteers can also represent an inducement to participate in research. Other tangible incentives may be equipment or clothing that an individual may be allowed to keep when a study is over, such as boots, parkas, or other uniform items. Intangible incentives include factors such as the opportunity to avoid less desirable work or as-

signments (such as happened in the Vietnam era) and recovery time or weekend passes that can be used later. It is important to recognize not only that soldiers or patients may belong to a vulnerable category, but also that they might be vulnerable to external pressures or incentives. It is imperative to nullify these pressures in the informed consent process, not only for military volunteers, but also for volunteers in civilian studies.

### *Research With No Direct Benefit for Test Subject*

Some research is conducted in military hospitals where sick soldiers may receive direct benefit by participating in research designed to test what may be an improved treatment for their illness. Other military research involves testing healthy research volunteers who receive no direct benefit from the research (Figure 19-5). Should the military be involved in this type of research? Yes, according to the principle of justice as defined in the *Belmont Report*. The burden for the research should be born by the people benefiting from the research. Most research being conducted by the military is directly applicable to the military's unique mission and will thus benefit soldiers everywhere, even though the individual soldiers involved in the research may not



**Fig. 19-5.** The climate chambers are an important resource in the development of clothing or protective equipment. This 1990 photo shows a firefighting suit developed by the Navy. Although the soldier who is volunteering to test this suit for the US Navy may not derive any direct benefit from his participation in research, this work will benefit thousands of other soldiers, and is thus permissible under the principle of *justice*. Photograph: Courtesy of US Army Research Institute of Environmental Medicine, Natick, Massachusetts.

derive benefits directly through their participation.

Military service members need to be able to deploy globally with little advance notice. These deployments often involve rapid relocation to areas with extreme heat, cold, or altitude. When civilians subject themselves to these environmental extremes they usually have the opportunity to do so more gradually. Civilian mountain climbers, for example, can spend several days at camps at various altitudes so their bodies can adjust to the lower concentration of oxygen in the atmosphere, thereby minimizing the impact of altitude sickness. Military members may not have this option due to the urgency of the mission. For this reason, USARIEM conducts studies to determine how to prevent heat illness, altitude sickness, and cold injury.

Soldiers must maneuver in hot, dry deserts and in steamy jungles. Military occupations are physically demanding, and there is often the further strain of imminent enemy contact. Soldiers cannot usually opt to rest in the shade when they begin to feel hot. Moreover, during the Persian Gulf War, there was an added danger of chemical warfare. Soldiers were issued chemical protective clothing and protective masks, but this equipment may significantly increase the risk of heat-related illnesses. Very few civilian occupations require this type of exposure to heat. Military research has also led to the development of hydration regimens that have benefited soldiers. For example, large quantities of water were shipped to the Persian Gulf, preventing numerous heat casualties.

The US Army SSBCOM also researches measures to enhance the environment for soldiers and develops new clothing, individual equipment, and food for the military. For example, studies are conducted on backpacks to determine the proper center of gravity to minimize muscle strain among soldiers carrying heavy loads for long periods of time. Boots are tested to make sure they will keep feet warm at sub-zero temperatures. Chemical protective clothing is tested on soldiers exercising in the heat to see how long soldiers can operate without suffering heat-related illnesses. It is useful to get feedback during the development of these items from the soldiers that will be using the items, but such research must always adhere to guidelines that protect human subjects.

Because the military may be deployed globally, the armed forces must be prepared to vaccinate its members against diseases that are not found in the United States. Pharmaceutical companies, however, have few financial incentives to develop vaccines for diseases that are uncommon in the United States. The US Army Medical Research Institute for Infec-

tious Diseases (USAMRIID) develops vaccines, drugs, and diagnostic tests to protect military members from disease and biological agents.

The Air Force conducts studies with human subjects to acquire data on responses to various types of stress experienced in acceleration and high-gravity (high-g) forces to protect the crews of high-performance aircraft and other aerospace weapons systems. These data are also used for operational planning. Similarly, the Navy conducts research on the impact of decompression on sailors who are divers or assigned to submarine duty.

At all of these research centers, healthy service members are asked to volunteer for research that does not benefit them, but which is expected to benefit military members facing difficult conditions. These subjects are told that they will receive no direct benefit from participating in the research. All risks are carefully explained to them. They volunteer for many reasons. Most say they are proud to be able to positively affect the health and welfare of soldiers on future battlefields. Some of these service members plan careers in the healthcare industry; participating in research is of special interest to them. Some can pursue college courses during the evenings or weekends when they are not testing. Taking courses while assigned to a research center is easier than if they were assigned to units that may deploy to the field at any time. The service members who volunteer to participate in military research generally report that they like the assignment and have a sense of accomplishment and contribution.

### *Potential for Disagreement Between the Commander and the IRB*

These service members should be well-protected by the local IRB. A great deal of authority was given to IRBs when they were set up in the late 1970s. Even though they are called institutional review boards their purpose is to protect the research volunteer, not the institute, and military IRBs are no exception. The IRB forwards its decisions to the institute commander. According to 32 CFR 219.112, the commander *can* disapprove protocols that the IRB has recommended for approval, however, the commander cannot approve a protocol that the IRB has rejected. This can create tension in a military setting because in most cases the commander bears responsibility for everything and everyone under his command. If an investigator complains to the commander that the IRB is being unnecessarily slow, bureaucratic, or unreasonable in its decision to disapprove his study, the commander cannot



decide to overturn the committee's decision even if the commander agrees with the investigator. Commanders do approve the IRB membership, but regulations require a diverse group to represent a spectrum of viewpoints and expertise. Sometimes the IRB will disagree with investigators and even the institute commander. This is expected, and when it happens, it demonstrates that the IRB is functioning independently. Commanders of research institutes realize that there will be times when disagreements arise. When the IRB is protecting the research volunteer, it is ultimately protecting the institute as well. Additionally, IRB members have the right to file a "minority report" if they disagree with a final IRB decision.

### *The Perception of Risk vs. Reward*

Another unique ethical problem for the military research community is fear of war. Given a choice, many individuals would choose to participate in military research rather than be deployed to a war zone. Arguably, this was the case for most of the soldiers who volunteered to come to Natick Labs during the Vietnam era. One of the best recruiting trips for human research volunteers for the Natick Research Development and Engineering Center occurred at Fort Benning, Georgia in early February 1991. The air war had just started in Iraq, and the audience of newly trained infantrymen knew the ground war would start soon. Many decided to volunteer to go to Natick as human research volunteers.

People's behavior and the choices they make vary according to their values and goals and a plethora of other factors and influences in their environment. This is the way things should be. It is nonetheless important to be sensitive to situations where the forces acting on one side of a decision grow so strong that a person really can only make one choice. Even if every reasonable person would agree with a given decision, there may still be situations where free choice is nonexistent and informed consent is meaningless.

This sort of situation might develop in acquired immunodeficiency syndrome (AIDS) or cancer research when an individual must choose between near certain death or a high-risk, high-side-effect treatment with a low probability of success. Consider the quandary of a father who is the only tis-

sue-compatible kidney donor for his daughter. He knows she will die if he doesn't donate a kidney. Such an example may not relate to consent for research per se, but it does illustrate the difficulty in obtaining true consent when a person is under significant duress. When faced with such a decision an individual may find it nearly impossible to objectively consider the many significant risks of the procedure.

If the good of the many can ever be more important than the needs of the few, these cases may provide the examples. This is why ethical decision making is so complex. One could no sooner argue that a young girl's life is less important than a father's right to free choice than one could argue that the need to stem the spread of the AIDS epidemic is less important than an individual's right to offer himself to further efforts to develop a cure, even if he is unlikely to benefit and may even suffer from participation in the research.

Likewise it may not be the best policy to stop doing human research during times of war to preclude the likelihood that the fear of war influences people's propensity to volunteer, because commanders may need information from the research to help make decisions on deploying their soldiers in the war zone. For example, shortly after US troops deployed to the Persian Gulf for Operation Desert Shield in August 1990, the surgeon of the 18th Corps needed immediate information on the side effects of pyridostigmine bromide (PB) on soldiers operating in the heat. USARIEM quickly mounted a study in the climatic chambers at Natick using soldier research volunteers to expeditiously find the answer to the question asked by the corps surgeon. Side effects among soldiers operating in the heat and taking the recommended dosages of PB were found to be minor, especially when compared to the threat of Iraqi nerve agent use against US troops. With this information the corps surgeon was able to make an informed decision to administer the pretreatment drug for nerve agent. Questions will arise in future conflicts that will need immediate answers, thus military researchers will need to recruit research volunteers even during times of war. Because service members may be more likely to volunteer in times of war, there is a need to be even more careful to be certain that they are fully informed.

## **OTHER TOPICS IN MILITARY HUMAN RESEARCH**

Other issues that confront military researchers include if and when it is appropriate to use deception, challenges that surround special compensation

programs for research subjects, and use of electronic data. This section reviews these issues and describes a unique Army program that recruits and manages



a pool of active duty subject volunteers while implementing existing procedures designed to protect their rights as volunteers.

### **Deception in Military Research**

Under what circumstances, if any, can the military engage in deceptive research? The very thought of any type of deception in military research is chilling. An immediate reaction may be that the military should never engage in any type of deception while conducting human research. However, there are interesting and important research questions in behavioral science that require withholding the true purpose of the study from the volunteers until after the study is completed, even though the volunteers need to be told exactly what will happen during the research. In a previous example, we mentioned a study that examined how an NCO's or officer's opinion of food influenced how much food was eaten by lower ranking soldiers. The soldiers were told that they were being asked to volunteer for a consumption study of new rations. They were told that they would be asked their opinions about the new rations and the leftovers from their meals would be collected to measure how much they consumed. What they were not told was that the NCOs and officers would be making negative comments at one meal, positive comments at another meal, and no comments at a third meal, for the purpose of finding out if rank can influence ration preference. This purpose could not have been achieved if that was told to the soldiers before they participated in the study.

Was this study authorized under 32 CFR 219? Yes, because according to 32 CFR 219.116(d) this study met all the requirements for an IRB to waive all or a portion of informed consent. The requirements are: (a) the research must involve no more than minimal risk; (b) the waiver must not adversely affect the rights of the subjects; (c) the research could not be carried out without the waiver; and (d) after their participation the subjects should be given a detailed description of the true nature of the study and any other pertinent information.<sup>48</sup>

All human research that involves any type of deception must be reviewed by an IRB. Only the IRB has the authority to waive all or a portion of informed consent. These types of studies seem benign because they pose no risk to soldiers. Nonetheless, investigators must submit a full protocol to the IRB if they plan to withhold any information no matter how minor that information may seem to them. A now famous study conducted in the early 1960s<sup>49</sup> asked volunteers to deliver shocks to a second individual in order to improve the second

individual's ability to answer questions correctly. The second individual wasn't actually receiving any shocks, and the true nature of the experiment was to see how far people would go in following instructions of the investigator even when the second individual "showed" substantial distress from the shocks. Surprisingly, these volunteers followed the instructions of the investigator even when they believed they were causing the second person substantial harm. It is unlikely that such a study would be approved under current ethical research guidelines.

As already stated, Title 10 of the United States Code, Section 980 (10 USC 980) stipulates that DoD can perform research with human subjects only if informed consent is obtained in advance. This may suggest that DoD should not be involved in any type of research where all or a portion of informed consent is waived, and that 10 USC 980 and 32 CFR 219 are in disagreement on this point. Paragraph 32 CFR 219.116 spells out exactly what is included in informed consent.<sup>48</sup> A simple definition is that informed consent is a person's voluntary agreement, based on adequate knowledge and understanding of relevant information, to participate in research or to undergo a diagnostic, therapeutic, or preventive procedure.<sup>50</sup> Moreover, no rights can be waived as a part of informed consent. Based on this definition of informed consent and the criteria given in 32 CFR 219.116(d), there may be instances when DoD investigators may ethically be permitted to conduct research involving elements of deception. Interpreting the regulations governing human research, however, can be very difficult. That is the reason military investigators wishing to do research involving deception must submit their proposals to the IRB. It is the responsibility of the IRB to evaluate these issues and make a recommendation to the commander.

### **Classified Research**

The ethical review of classified research poses particular challenges for IRBs. Historically, some of the DoD's worst transgressions in ethical treatment of human subjects have arisen from studies that were kept secret in the interest of national security. Although there may have been legitimate national security interests in doing so, the results were sometimes horrific. The ACHRE report stated that the IRB chair could remove the classified portions of the research protocol prior to IRB review, provided that they did not bear on risk to human subjects.<sup>11</sup> If, however, the classified portions of the protocol did bear on subject safety, then the IRB members (including at least one member not affiliated with the agency or institution) must have appropriate

security clearances in order to review the protocol. A protocol's status as classified also raises issues in the assignment of study personnel (eg, medical monitors) and in the briefing of the volunteer recruitment pool. Briefing the volunteers may need to be done using special procedures, and the medical monitors of the study or the volunteers themselves might also require security clearances.

In response to the concerns raised by the ACHRE over past errors in classified research, President Clinton issued a memorandum with proposed revisions to guidelines concerning use of human subjects in classified research.<sup>51</sup> These guidelines are an attempt to balance the interests of national security with the moral and ethical obligations to protect the rights of human subjects who participate in such research. They prohibit waiving the requirement of informed consent and further prohibit the use of expedited review for classified research protocols. Researchers are required to notify subjects that the research is classified and to inform participants of the identity of the sponsoring Federal agency. The regulations specify that permanent records must be kept indefinitely on classified research. The ACHRE had made a recommendation that classified research protocols should be reviewed by an independent panel of nongovernmental experts and citizen representatives to protect the "interests of the public in openness in science and in government."<sup>11</sup> The new regulations stopped short of implementing a separate oversight panel, but stated that IRBs for secret projects should include a nongovernmental member with an appropriate security clearance. Changes were also instituted in the approval and appeals process. Under the Common Rule, the IRB may approve a research protocol if a majority of its members approve the project.<sup>52</sup> The new guidelines concerning classified research state that if a minority of members of the IRB feel a classified research project should not be approved, they are allowed to appeal majority decisions to the head of the sponsoring Federal agency, and then to the Director of the White House Office of Science and Technology Policy. Clinton's memorandum called for amendments to the Common Rule to reflect these changes. The Secretary of Defense endorsed the proposed policy changes in December 1999, but to date these changes have not yet been incorporated in 32 CFR 219 or in a DoD directive.<sup>53</sup>

### **Special Compensation Programs**

There are special DoD programs to provide additional compensation for military research volunteers, including regulations authorizing experimental stress pay. This incentive pay is currently an

additional \$150 per month, whether the service member participates in 1 day of testing or 30 days of testing in any given month.<sup>54</sup> Two days of testing that include the last day of one month and the first day of the subsequent month would make the test subject eligible for environmental stress pay in both months. The \$150 payment for environmental stress pay may represent the difference in monthly pay between one enlisted pay grade and another. Not all types of military research qualify a volunteer for stress pay however. Only human acceleration or deceleration studies, thermal stress experiments, and high- or low-pressure chamber duty qualify for experimental stress pay. The Navy has specific criteria that apply only to Navy personnel involved in hyperbaric chamber duty and diving. Competent medical authorities make a determination as to whether or not a given study qualifies a service member for experimental stress pay.

Another type of payment for military members involved in military research is payment for blood draws. This law applies to persons donating or furnishing blood at government expense but also pertains to persons who furnish blood for scientific and research purposes as long as the person giving blood does not receive direct benefit.<sup>55</sup> This code authorizes up to \$50 per blood draw, to be drawn from public funds that are part of the research agency's budget. The head of each department or agency concerned determines payment policies. Some agencies that could pay volunteers for blood draws under this code have decided not to because of insufficient funds in their budget, concerns over creating an unreasonable inducement, and to avoid creating a precedent that would be difficult to maintain in the future for budgetary or other reasons.

If civilians who are not government employees are used as test subjects, payments for their time and inconvenience may be made provided that these payments are not so high as to be coercive. The payments need to be reasonable to cover inconvenience or expenses such as transportation and childcare that the volunteers may incur by participating in the study. They should be comparable to payments for studies at other institutions in the geographical area. The payments should not be so high as to encourage participation for payment only. If payments are withheld until the end of the study and not prorated, this may be a coercive incentive to people who want to withdraw but also want the payment. No regulation requires that the payment schedules to civilian volunteers be approved by the IRB, but it is strongly recommended because the local IRB needs to use their judgment in determining whether or not payments might be coercive.

Advertisements used to recruit civilians should also be IRB approved. Many military IRBs have these requirements as part of their institutional policies. It is always best to get IRB approval for everything involving the conduct of human research and this is especially true when monetary compensation is used.

One item that should be included on the informed consent form when using civilian volunteers in human research is a statement that they will receive medical care should they become injured or ill as a result of their participation. These statements need to be coordinated with local medical providers to be certain that they will provide the care that has been stipulated in the informed consent form. If medical care cannot be guaranteed then civilians should not be used to conduct DoD-funded research. Providing medical care to civilian volunteers is a statement that the Department of the Army has made regarding how it will conduct human research. Individual Army researchers do not have the authority to disregard this policy.

### **Electronic Data**

Advances in computer hardware and software technology have made the use of electronic data much more feasible in recent years. Vast databases of demographic and medical outcomes data can and have been created on desktop computers containing sensitive personal data on millions of service members.<sup>56</sup> As technology improves, it will become possible to link many different types of data for epidemiological research. This data could include lab results, radiographic images, photographs, pathology specimens, voice, free text, scanned images of records, and genetic material, as well as other potential data sources in the future. Whenever a situation develops that generates great excitement for its research possibilities, it is important that the enthusiasm for expected benefits from the research be tempered with careful consideration of the possible harms to unsuspecting individuals. In most cases, these individuals will have innocently provided information to trusted authorities, unaware of how it may be used in the future. As long as careful review is accomplished and ongoing oversight is ensured, the research potential of linked data can be realized without causing harm to individuals.

### **An Example of a Military Human Research Program**

Based on our personal experiences at SSBCOM and USARIEM, we believe it is possible to recruit soldier volunteers, obtain truly voluntary informed

consent, and meet the needs of investigators requiring a certain number of subjects completing the study in order to get statistically valid results. In the recent past, this program has worked as follows. A Department of the Army civilian employee manages the human research program. Working closely with her are a sergeant first class, a civilian test coordinator, and a military physician who accompanies the recruiting team to conduct physical exams on soldiers who volunteer for the program. A recruiting team conducts quarterly recruiting trips to advanced individual training (AIT) units after getting authority from the US Army Personnel Command (PERSCOM) to recruit a certain number of soldiers from particular military occupational specialties (MOSs) for a 90-day assignment to USARIEM. Since 1991 the team has targeted combat service support MOSs so that women could be included in the research.

After approval from Army PERSCOM is granted, coordination begins with a recruiting visit to a particular post. Briefings are scheduled in the early evening so that the soldiers will not miss training. The team briefs a large audience of soldiers (optimally about 100 if the goal is to recruit 20 soldiers). The team explains the mission of Natick Labs in developing food, clothing, and individual equipment for the soldier. The team explains the rights of research volunteers, testing procedures, methods of measurement, and collecting data and information about upcoming studies. Often a soldier research volunteer accompanies the team to tell first hand what it's like to be a research volunteer at Natick Labs. After potential volunteers have had a chance to ask questions their participation is solicited. The next morning the new volunteers report to the health clinic for a physical exam, usually from the Natick physician that travels with the team. While waiting to see the doctor the soldiers have a chance to ask more questions about the program.

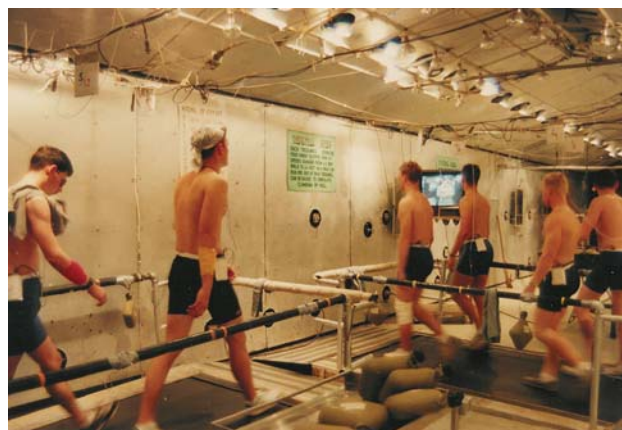
Once soldiers report to the Natick labs, they are greeted by the staff, and then they in-process. They are assigned jobs on post to work when they are not participating in human research studies. By their second or third day they are usually scheduled to attend their first study briefing. The team that recruits the volunteers is also the team that schedules briefings, assigns soldiers to studies, and makes sure that their rights as research volunteers are protected. No one from the research team is a scientist, which minimizes the opportunity for a conflict of interest.

Before their first briefing soldiers are told that the program is entirely voluntary and they do not have to enroll in the study if they do not want to. They may be somewhat hesitant at first but after

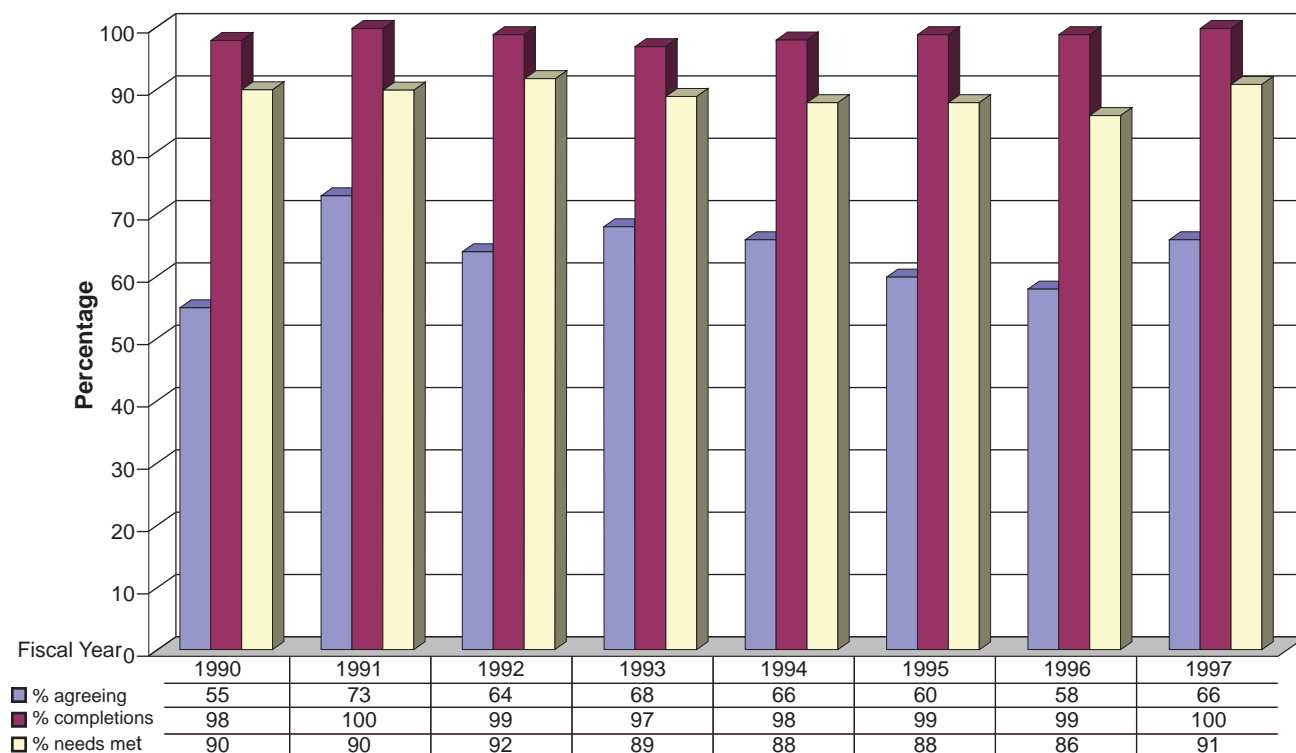
they have attended a few briefings and had a chance to interact with the investigators and talk to their fellow soldiers their comfort with the program generally increases. They learn that the team has been honest with them and is genuinely concerned about their rights and welfare.

Soldiers are scheduled to attend study briefings regularly in the climatic chambers building, where the human research program team has its offices. Occasionally briefings are conducted in labs where the research is ongoing to allow the soldiers to see the study actually taking place. This is helpful if elements of the study are difficult to explain in a classroom setting, or when direct observation provides the clearest picture of the demands of the study.

When the investigators are conducting the briefing, a human research program team member is always present as a witness to ensure that the investigator thoroughly explains the study in terms the soldiers can understand. If there is something that might confuse soldiers the witness asks questions to get clarification. Once soldiers see the witness asking questions or other soldiers asking questions



**Fig. 19-6.** These soldiers are participating in a March 1990 study to determine whether dietary sodium intake is related to acclimatization to extreme desert conditions (120°F and 20% relative humidity). The overhead rigging shown in the photo includes lines for wires and tubes used to collect data on physiologic status. Physicians monitor volunteer participants in such studies for adverse reactions—an important step in assuring their health and well-being. Photograph: Courtesy of US Army Research Institute of Environmental Medicine, Natick, Massachusetts.



**Fig. 19-7.** Proportion of soldiers invited to participate in research who volunteer to do so vs. proportion who actually complete the study once enrolled vs. proportion of investigator's needs met.

Note: Soldiers attend multiple informed consent briefings in any given year, and thus have multiple opportunities to participate. Not all soldiers who volunteer for a study are enrolled, however. Data provided by the Human Research Support Program Coordinator, The Soldiers Systems Command, Natick, Massachusetts.



they feel more comfortable asking questions of their own. In most research settings, it is not customary to conduct informed consent briefings in groups. However, this continues to be the preferred method at SSB COM due to the nature of the research, the benefits of hearing the questions and concerns of other potential volunteers, and the opportunity it affords the individual to make an unpressured decision after the briefing is over and the investigator has departed.

When soldiers sign their consent forms for a study they believe they are signing up to participate in an important research project. They become an important part of the research team. This is one of the main motivational factors because Army research often has no direct benefit for the individual soldier volunteer (Figure 19-6).

The soldier volunteers also have responsibilities once they sign up to do a study, including reading and following the test schedules. Once they volunteer for a study it is their responsibility to report on time to the testing sessions in the correct uniform and to follow any diet or other restrictions proscribed in the research protocol. The soldiers are responsible for letting the investigator or medical monitor know about any changes in their health. Soldiers are also responsible for reporting any study violations. This way any problems that arise can be resolved immediately.

The "voluntariness" of the program is supported by the data. For example, between October 1988 and September 1997, hundreds of volunteer soldiers participated in research at Natick. As shown in Figure 19-7, only an average of 60% to 75% of soldiers briefed on any given study chose to participate. Of those who did volunteer, however, only a small percentage quit before completing the study. The result was that 86% to 92% of the numbers of volunteers requested, on average, were in fact made available for the research. The Natick program supports between 15 and 25 studies annually. Even with rates of refusal running between 25% and 40%, the rate of needs met has been remained fairly consistent over the 8-year period.

Furthermore, the high rate of refusals indicates that soldiers feel comfortable not enrolling in certain studies and is *prima facie* evidence of the voluntary nature of the program. Having some number of drop-outs is consistent with freedom of choice and should be viewed as an expected consequence of a voluntary system. The reason the quit rate is so low may be that soldiers are well informed about perspective studies, feel free not to sign up for studies in the first place, and understand the importance of the service they are providing through their participation. Alternatively,

if no one ever quit then that might suggest that the program is not entirely voluntary.

Indirect pressure has occasionally come from command channels to terminate the assignment of individuals who do not appear to be volunteering often enough. This is not an unexpected reaction in a military environment where the culture does not tolerate anyone who appears to not be performing his or her duties. However, if a research program is truly voluntary, a bell-shaped curve might be expected; a few individuals, for whatever reason, will *never* volunteer (as volunteers it is solely their decision whether or not to participate), and other individuals will volunteer each and every time they are given an opportunity.

It is appropriate to ask soldiers who do not sign up for any studies over a period of several months what their intentions are. If they are no longer interested in participating in research they can then be reassigned to another installation if necessary. Soldiers who no longer wish to participate in research typically ask to be reassigned. Sending a sol-



**Fig. 19-8.** These soldiers are participating in a November 1990 study to determine physiologic response to the personal protective ensemble. Modern warfare carries the increasing likelihood that enemies will employ biological or chemical agents such as anthrax or nerve gas. Researchers are continually developing garments and equipment that will protect soldiers from these modern threats, although they must be tested to ensure that they do not hinder the soldier's mission by limiting dexterity or by placing the wearer at risk of heat exhaustion. The timely development of such garments has the potential to protect soldiers from hostile threats on the battlefield, but researchers face an ethical imperative to ensure the safety of the soldiers who assist in the development of such protective equipment. Photograph: Courtesy of US Army Research Institute of Environmental Medicine, Natick, Massachusetts.

dier (who desires to move on) to a new duty assignment does not represent an adverse consequence because it has been a standard practice to reassign personnel based on the needs of the military services for decades. Forcing a person to move solely based upon their unwillingness to volunteer for studies, however, is inconsistent with a truly voluntary program.

Even though soldiers volunteer to come to Natick for 90 days, many of these soldiers like the testing so much that they request to stay an additional 90 days. These extension requests have to be approved by PERSCOM. Extending soldier volunteers has been a very cost effective way of ensuring a pool of enthusiastic potential volunteers is available for studies.

In the recent past, Natick was also authorized to recruit 15 soldiers who were assigned as research volunteers for 2 years. This group of so-called permanent party volunteers has formed the backbone of the Natick program. It is difficult to recruit during the summer months because that is when the

reservists and National Guard soldiers are trained. Because Natick only recruits Regular Army soldiers and because the permanent party group is continually available to volunteer for studies during summer months and during lags between the recruitment of new soldiers, this group has contributed great stability to the volunteer pool.

When soldiers are not testing they work in a job on post that best utilizes their individual occupational skills and interests. SSBCOM Headquarters Detachment provides military training and physical fitness programs and monitoring for the research soldier-volunteers. In this way, the Army can meet the military career needs of the volunteers while supporting a wide spectrum of important militarily relevant human research. The Natick program is successful because the soldier volunteers, scientists, military chain of command, and human research support program office all work together to protect the rights of the soldiers while these militarily important research protocols are being conducted (Figure 19-8).

## CONCLUSION

The most important way to improve human research within the DoD is to educate commanders and investigators alike about the rights of soldier research volunteers. This is difficult because most of the military is not involved with research on a daily basis and the very notion of “volunteer” may run counter to traditional military thinking. It should be a requirement when human research is conducted in field units that unit commanders be briefed as to the voluntary nature of human research as described in the Code of Federal Regulations and in each service’s specific regulations.

Military organizations that are involved in developing, testing, and evaluating materials and equipment for use by soldiers, marines, sailors, and airmen should fully understand the military’s human use policies and regulations. Even though they may not be conducting human research per se, they often involve humans in evaluating the products they are developing, and at these times human research regulations may apply. The military medical community must remain fully informed and compliant with human use regulations if they are to appropriately use soldiers, sailors, marines, and airmen as volunteers for research.

## ACKNOWLEDGMENT

The authors would like to acknowledge the contributions of Laura Senier, C. Bruce Wenger, and Sarah A. Nunneley for their critical review and substantial input to the development of the content for this chapter.

## REFERENCES

1. Harman LB. *Ethical Challenges in the Management of Health Information*. Gaithersburg, Md: Aspen Publishers; 2001.
2. Coughlin SS, Beauchamp TL. *Ethics and Epidemiology*. New York: Oxford University Press; 1996.
3. Coughlin SS. *Ethics in Epidemiology and Clinical Research: Annotated Readings*. Newton, Mass: Epidemiology Resources Inc; 1995.
4. King NMP, Henderson G, Stein J. *Beyond Regulations: Ethics in Human Subjects Research*. Chapel Hill: University of North Carolina Press; 1999.
5. Beauchamp DE, Steinbock B. *New Ethics for the Public's Health*. New York: Oxford University Press; 1999.
6. Cheney D. *Ethical Issues in Research*. Frederick, Md: University Publishing Group; 1993.
7. Brody BA. *The Ethics of Biomedical Research: An International Perspective*. New York: Oxford University Press; 1998.
8. Smith T. *Ethics in Medical Research: A Handbook of Good Practice*. New York: Cambridge University Press; 1999.
9. Katz J. The regulation of human experimentation in the United States: A personal odyssey. *IRB Review of Human Subjects Research*. 1987;9(1):1–6.
10. Feldshuh D. Writing “Miss Ever’s Boys”: Ethical truth and factual fiction. In: *The Evolution of Protecting Human Subjects: From Nuremberg to the Nineties*. Washington, DC: DHEW; 1991.
11. Advisory Committee on Human Radiation Experiments. *Final Report*. Washington, DC: GPO; 1995.
12. Wilson Memorandum. Dated 26 February 1953. From the Secretary of Defense to the Secretaries of the Army, Navy, and Air Force. Available at: [http://www.tis.eh.doe.gov/ohre/roadmap/achre/chap1\\_3.html](http://www.tis.eh.doe.gov/ohre/roadmap/achre/chap1_3.html). Accessed 7 June 2002.
13. Abrams J. VA will compensate WWII mustard gas victims. *Middlesex News*. 1991:3B.
14. Bordes PA, Finan JL, Hochstim JR, McFann HH, Schwartz SG. *Desert Rock I: A Psychological Study of Troop Reactions to an Atomic Explosion*. Washington, DC: Human Resources Research Office, George Washington University. TR-1. February 1953.
15. *Desert Rock IV: Reactions of an Armored Infantry Battalion to an Atomic Bomb Maneuver*. Washington, DC: Human Resources Research Office, George Washington University. TR-2. August 1953.
16. Pechura CM, Rall DM. *Veterans at Risk: The Health Effects of Mustard Gas and Lewisite*. Washington, DC: National Academy Press; 1993.
17. World Medical Association. Declaration of Helsinki. Ethical principles for medical research involving human subjects. *JAMA*. 2000;284(23):3043–3045.
18. Annas G. Mengele’s birthmark: The Nuremberg Code in the United States courts. *J Contemp Health Law Policy*. 1991;7(17):36–38.
19. *United States v. Stanley*. 483 US 669 (1987).
20. Zelezny EG. Chief, Chambers Research Section. *Volunteer Test Subjects Utilized by Chemical Corps Medical Laboratories*. Natick, Mass: US Army Quartermaster Research and Engineering Center Laboratories; 1 July 1955.
21. Elton NW. Commander, Chemical Corps Medical Laboratories. *Enclosure 2 to Recruitment of Military Volunteers From Fort George Meade, Md*. Fort Meade, Md: Army Chemical Center; 1955.

22. Whitney CL. Commanding Officer, US Army Quartermaster Research and Engineering Center Laboratories. *Rewards for Personnel Selected to Serve in the Climatic Research Laboratory*. Natick, Mass: US Army Quartermaster Research and Engineering Center Laboratories; 10 December 1959.
23. Kobrick JL, Research Psychologist assigned to USARIEM. Personal communication, 1997.
24. Personal communication. The veterans talking to one of the authors (LLW) during their reunion at Natick, Mass, August 1997.
25. Riis P. Perspectives on the fifth revision of the Declaration of Helsinki. *JAMA*. 2000;284(23):3045–3046.
26. National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. *The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research*. Available at: <http://ohrp.osophs.dhhs.gov/polasur.htm>. Accessed 16 April 2002.
27. Presidential Advisory Committee on Gulf War Veterans' Illnesses. *Final Report*. Washington, DC: US GPO; 1996.
28. Keeler JR, Hurst CG, Dunn MA. Pyridostigmine used as a nerve agent pretreatment under wartime conditions [see comments]. *JAMA*. 1991;266(5):693–695.
29. Informed consent for human drug and biologics: Determination that informed consent is not feasible. 55 *Federal Register* 52814–52817 (1990).
30. Funk D. Nerve gas estimate expanded to 100,000. *Army Times*. 1997:3.
31. 45 CFR 46.102.
32. Office of the Secretary of Defense. *Department of Defense (DoD) Guidance for Assurance of Compliance With the Federal Policy for the Protection of Human Subjects*. Washington, DC: DoD; 1993.
33. Gray GC, Chesbrough K, Ryan MA, et al. The Millennium Cohort Study: A 21-year prospective cohort study of 140,000 military personnel. *Mil Med*. 2002;167(6):483–488.
34. 1991 International Guidelines for Ethical Review of Epidemiological Studies; Available at: <http://www.cdc.gov/od/ads/intlgui3.htm>. Accessed 23 April 2002.
35. Amoroso PJ, Ryan JB, Bickley B, Leitschuh P, Taylor DC, Jones BH. Braced for impact: Reducing military paratroopers' ankle sprains using outside-the-boot braces. *J Trauma*. 1998;45(3):575–580.
36. 10 USC §980 (1998).
37. *Feres v. United States*. 340 US 135 (1950).
38. US Department of Defense. *Protection of Human Subjects and Adherence to Ethical Standards in DoD-Supported Research*. Washington, DC: DoD; 2002. DoD Directive 3216.2.
39. US Department of the Army. *Use of Volunteers as Subjects of Research*. Washington, DC: DA; 1990. Army Regulation 70-25.
40. US Department of the Navy. *Protection of Human Subjects*. Washington, DC: Navy; 2002. Navy Regulation 3900.39C, § 6.1.5.
41. 38 CFR, Part 17.85, § a.
42. US Department of the Army. *Medical Record Administration and Health Care Documentation*. Washington, DC: DA; 1999. Army Regulation 40-66.



43. US General Accounting Office. *Record Linkage and Privacy: Issues in Creating New Federal Research and Statistical Information*. Washington, DC: US GPO; 2001.
44. Health Insurance Portability and Accountability Act of 1996 (HIPAA). Pub L No. 104-191.
45. Hirsch ES, Kramer FM. Situational influences on food intake. In: Marriott BM, ed. *Nutritional Needs in Hot Environments: Application for Military Personnel in Field Operations*. Washington, DC: National Academy Press; 1993.
46. *Ethical and Policy Issues in Research Involving Human Participants*. Bethesda, Md: National Bioethics Advisory Commission; 2001.
47. Laxity in the labs. *Boston Globe*. 2 September 2001:A6.
48. *Protection of Human Subjects*. Washington, DC: Office of the Secretary of Defense; 1991.
49. Milgram S. *Obedience to Authority*. New York: Harper and Row; 1974.
50. Office for the Protection From Research Risks, US Department of Health and Human Services. *Institutional Review Board Guidebook*. Washington, DC: National Institutes of Health; 1993.
51. Clinton WJ. Strengthened protections for human subjects of classified research. Washington, DC. 62 *Federal Register* 26369-26372 (1997).
52. Protection of Human Subjects, 32 CFR 219, 1991.
53. Decot P. *DDR&E Updates to Human Subject Research Policy*. PowerPoint presentation. Available at: <http://mrmc-www.army.mil/docs/rcq/HSRRBOffSite02/DECOT.ppt>. Accessed: 2 December 2002.
54. *DoD Financial Management Policy and Procedures*. Washington, DC: DoD; 1992.
55. Hospitals and Asylums, 24 USC §30 (1927).
56. Amoroso PJ, Yore MM, Weyandt B, Jones BH. Chapter 8. Total Army injury and health outcomes database: A model comprehensive research database. *Mil Med*. 1999;164(8 Suppl):1-36.

## CHAPTER 19: ATTACHMENT 1

### THE BELMONT REPORT

Office of the Secretary

Ethical Principles and Guidelines for the Protection of Human Subjects of Research

The National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research

April 18, 1979

**AGENCY:** Department of Health, Education, and Welfare [DHEW].

**ACTION:** Notice of Report for Public Comment.

**SUMMARY:** On July 12, 1974, the National Research Act (Pub. L. 93-348) was signed into law, thereby creating the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. One of the charges to the Commission was to identify the basic ethical principles that should underlie the conduct of biomedical and behavioral research involving human subjects and to develop guidelines which should be followed to assure that such research is conducted in accordance with those principles. In carrying out the above, the Commission was directed to consider: (i) the boundaries between biomedical and behavioral research and the accepted and routine practice of medicine, (ii) the role of assessment of risk-benefit criteria in the determination of the appropriateness of research involving human subjects, (iii) appropriate guidelines for the selection of human subjects for participation in such research and (iv) the nature and definition of informed consent in various research settings.

The Belmont Report attempts to summarize the basic ethical principles identified by the Commission in the course of its deliberations. It is the outgrowth of an intensive four-day period of discussions that were held in February 1976 at the Smithsonian Institution's Belmont Conference Center supplemented by the monthly deliberations of the Commission that were held over a period of nearly four years. It is a statement of basic ethical principles and guidelines that should assist in resolving the ethical problems that surround the conduct of research with human subjects. By publishing the Report in the Federal Register, and providing reprints upon request, the Secretary intends that it may be made readily available to scientists, members of Institutional Review Boards, and Federal employees. The two-volume Appendix, containing the lengthy reports of experts and specialists who assisted the Commission in fulfilling this part of its charge, is available as DHEW Publication No. (OS) 78-0013 and No. (OS) 78-0014, for sale by the Superintendent of Documents, US Government Printing Office, Washington, DC 20402.

Unlike most other reports of the Commission, the Belmont Report does not make specific recommendations for administrative action by the Secretary of Health, Education, and Welfare. Rather, the Commission recommended that the Belmont Report be adopted in its entirety, as a statement of the Department's policy. The Department requests public comment on this recommendation.

National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research

#### Members of the Commission

Kenneth John Ryan, MD, Chairman, Chief of Staff, Boston Hospital for Women.

Joseph V. Brady, PhD, Professor of Behavioral Biology, Johns Hopkins University.

Robert E. Cooke, MD, President, Medical College of Pennsylvania.

Dorothy I. Height, President, National Council of Negro Women, Inc.

Albert R. Jonsen, PhD, Associate Professor of Bioethics, University of California at San Francisco.

Patricia King, JD, Associate Professor of Law, Georgetown University Law Center.

Karen Lebacqz, PhD, Associate Professor of Christian Ethics, Pacific School of Religion.

\*\*\* David W. Louisell, JD, Professor of Law, University of California at Berkeley.

Donald W. Seldin, MD, Professor and Chairman, Department of Internal Medicine, University of Texas at Dallas.

\*\*\* Eliot Stellar, PhD, Provost of the University and Professor of Physiological Psychology, University of Pennsylvania.

\*\*\* Robert H. Turtle, LLB, Attorney, VomBaur, Coburn, Simmons & Turtle, Washington, DC

\*\*\* Deceased.

#### Table of Contents

Ethical Principles and Guidelines for Research Involving Human Subjects

- A. Boundaries Between Practice and Research
- B. Basic Ethical Principles
  - 1. Respect for Persons
  - 2. Beneficence
  - 3. Justice
- C. Applications
  - 1. Informed Consent
  - 2. Assessment of Risk and Benefits
  - 3. Selection of Subjects

## **Ethical Principles & Guidelines for Research Involving Human Subjects**

Scientific research has produced substantial social benefits. It has also posed some troubling ethical questions. Public attention was drawn to these questions by reported abuses of human subjects in biomedical experiments, especially during the Second World War. During the Nuremberg War Crime Trials, the Nuremberg code was drafted as a set of standards for judging physicians and scientists who had conducted biomedical experiments on concentration camp prisoners. This code became the prototype of many later codes<sup>1</sup> intended to assure that research involving human subjects would be carried out in an ethical manner.

The codes consist of rules, some general, others specific, that guide the investigators or the reviewers of research in their work. Such rules often are inadequate to cover complex situations; at times they come into conflict, and they are frequently difficult to interpret or apply. Broader ethical principles will provide a basis on which specific rules may be formulated, criticized and interpreted.

Three principles, or general prescriptive judgments, that are relevant to research involving human subjects are identified in this statement. Other principles may also be relevant. These three are comprehensive, however, and are stated at a level of generalization that should assist scientists, subjects, reviewers and interested citizens to understand the ethical issues inherent in research involving human subjects. These principles cannot always be applied so as to resolve beyond dispute particular ethical problems. The objective is to provide an analytical framework that will guide the resolution of ethical problems arising from research involving human subjects.

This statement consists of a distinction between research and practice, a discussion of the three basic ethical principles, and remarks about the application of these principles.

### **A. Boundaries Between Practice and Research**

It is important to distinguish between biomedical and behavioral research, on the one hand, and the practice of accepted therapy on the other, in order to know what activities ought to undergo review for the protection of human subjects of research. The distinction between research and practice is blurred partly because both often occur together (as in research designed to evaluate a therapy) and partly because notable departures from standard practice are often called “experimental” when the terms “experimental” and “research” are not carefully defined.

For the most part, the term “practice” refers to interventions that are designed solely to enhance the well-being of an individual patient or client and that have a reasonable expectation of success. The purpose of medical or behavioral practice is to provide diagnosis, preventive treatment or therapy to particular individuals.<sup>2</sup> By contrast, the term “research” designates an activity designed to test an hypothesis, permit conclusions to be drawn, and thereby to develop or contribute to generalizable knowledge (expressed, for example, in theories, principles, and statements of relationships). Research is usually described in a formal protocol that sets forth an objective and a set of procedures designed to reach that objective.

When a clinician departs in a significant way from standard or accepted practice, the innovation does not, in and of itself, constitute research. The fact that a procedure is “experimental,” in the sense of new, untested or different, does not automatically place it in the category of research. Radically new procedures of this description should, however, be made the object of formal research at an early stage in order to determine whether they are safe and effective. Thus, it is the responsibility of medical practice committees, for example, to insist that a major innovation be incorporated into a formal research project.<sup>3</sup>

Research and practice may be carried on together when research is designed to evaluate the safety and efficacy of a therapy. This need not cause any confusion regarding whether or not the activity requires review; the general rule is that if there is any element of research in an activity, that activity should undergo review for the protection of human subjects.

### **B. Basic Ethical Principles**

The expression “basic ethical principles” refers to those general judgments that serve as a basic justification for the many particular ethical prescriptions and evaluations of human actions. Three basic principles, among those generally accepted in our cultural tradition, are particularly relevant to the ethics of research involving human subjects: the principles of respect of persons, beneficence and justice.

**1. Respect for Persons.** Respect for persons incorporates at least two ethical convictions: first, that individuals should be treated as autonomous agents, and second, that persons with diminished autonomy are entitled to protection. The principle of respect for persons thus divides into two separate moral requirements: the requirement to acknowledge autonomy and the requirement to protect those with diminished autonomy.

An autonomous person is an individual capable of deliberation about personal goals and of acting under the direction of such deliberation. To respect autonomy is to give weight to autonomous persons’ considered opinions and choices while refraining from obstructing their actions unless they are clearly detrimental to others. To show lack of respect for an autonomous agent is to repudiate that person’s considered judgments, to deny an individual the freedom to act on those considered judgments, or to withhold information necessary to make a considered judgment, when there are no compelling reasons to do so.

However, not every human being is capable of self-determination. The capacity for self-determination matures

during an individual's life, and some individuals lose this capacity wholly or in part because of illness, mental disability, or circumstances that severely restrict liberty. Respect for the immature and the incapacitated may require protecting them as they mature or while they are incapacitated.

Some persons are in need of extensive protection, even to the point of excluding them from activities which may harm them; other persons require little protection beyond making sure they undertake activities freely and with awareness of possible adverse consequence. The extent of protection afforded should depend upon the risk of harm and the likelihood of benefit. The judgment that any individual lacks autonomy should be periodically reevaluated and will vary in different situations.

In most cases of research involving human subjects, respect for persons demands that subjects enter into the research voluntarily and with adequate information. In some situations, however, application of the principle is not obvious. The involvement of prisoners as subjects of research provides an instructive example. On the one hand, it would seem that the principle of respect for persons requires that prisoners not be deprived of the opportunity to volunteer for research. On the other hand, under prison conditions they may be subtly coerced or unduly influenced to engage in research activities for which they would not otherwise volunteer. Respect for persons would then dictate that prisoners be protected. Whether to allow prisoners to "volunteer" or to "protect" them presents a dilemma. Respecting persons, in most hard cases, is often a matter of balancing competing claims urged by the principle of respect itself.

**2. Beneficence.** Persons are treated in an ethical manner not only by respecting their decisions and protecting them from harm, but also by making efforts to secure their well-being. Such treatment falls under the principle of beneficence. The term "beneficence" is often understood to cover acts of kindness or charity that go beyond strict obligation. In this document, beneficence is understood in a stronger sense, as an obligation. Two general rules have been formulated as complementary expressions of beneficent actions in this sense: (1) do not harm and (2) maximize possible benefits and minimize possible harms.

The Hippocratic maxim "do no harm" has long been a fundamental principle of medical ethics. Claude Bernard extended it to the realm of research, saying that one should not injure one person regardless of the benefits that might come to others. However, even avoiding harm requires learning what is harmful; and, in the process of obtaining this information, persons may be exposed to risk of harm. Further, the Hippocratic Oath requires physicians to benefit their patients "according to their best judgment." Learning what will in fact benefit may require exposing persons to risk. The problem posed by these imperatives is to decide when it is justifiable to seek certain benefits despite the risks involved, and when the benefits should be foregone because of the risks.

The obligations of beneficence affect both individual investigators and society at large, because they extend both to particular research projects and to the entire enterprise of research. In the case of particular projects, investigators and members of their institutions are obliged to give forethought to the maximization of benefits and the reduction of risk that might occur from the research investigation. In the case of scientific research in general, members of the larger society are obliged to recognize the longer term benefits and risks that may result from the improvement of knowledge and from the development of novel medical, psychotherapeutic, and social procedures.

The principle of beneficence often occupies a well-defined justifying role in many areas of research involving human subjects. An example is found in research involving children. Effective ways of treating childhood diseases and fostering healthy development are benefits that serve to justify research involving children—even when individual research subjects are not direct beneficiaries. Research also makes it possible to avoid the harm that may result from the application of previously accepted routine practices that on closer investigation turn out to be dangerous. But the role of the principle of beneficence is not always so unambiguous. A difficult ethical problem remains, for example, about research that presents more than minimal risk without immediate prospect of direct benefit to the children involved. Some have argued that such research is inadmissible, while others have pointed out that this limit would rule out much research promising great benefit to children in the future. Here again, as with all hard cases, the different claims covered by the principle of beneficence may come into conflict and force difficult choices.

**3. Justice.** Who ought to receive the benefits of research and bear its burdens? This is a question of justice, in the sense of "fairness in distribution" or "what is deserved." An injustice occurs when some benefit to which a person is entitled is denied without good reason or when some burden is imposed unduly. Another way of conceiving the principle of justice is that equals ought to be treated equally. However, this statement requires explication. Who is equal and who is unequal? What considerations justify departure from equal distribution? Almost all commentators allow that distinctions based on experience, age, deprivation, competence, merit and position do sometimes constitute criteria justifying differential treatment for certain purposes. It is necessary, then, to explain in what respects people should be treated equally. There are several widely accepted formulations of just ways to distribute burdens and benefits. Each formulation mentions some relevant property on the basis of which burdens and benefits should be distributed. These formulations are (1) to each person an equal share, (2) to each person according to individual need, (3) to each person according to individual effort, (4) to each person according to societal contribution, and (5) to each person according to merit.

Questions of justice have long been associated with social practices such as punishment, taxation and political



representation. Until recently these questions have not generally been associated with scientific research. However, they are foreshadowed even in the earliest reflections on the ethics of research involving human subjects. For example, during the 19th and early 20th centuries the burdens of serving as research subjects fell largely upon poor ward patients, while the benefits of improved medical care flowed primarily to private patients. Subsequently, the exploitation of unwilling prisoners as research subjects in Nazi concentration camps was condemned as a particularly flagrant injustice. In this country, in the 1940s, the Tuskegee syphilis study used disadvantaged, rural black men to study the untreated course of a disease that is by no means confined to that population. These subjects were deprived of demonstrably effective treatment in order not to interrupt the project, long after such treatment became generally available.

Against this historical background, it can be seen how conceptions of justice are relevant to research involving human subjects. For example, the selection of research subjects needs to be scrutinized in order to determine whether some classes (eg, welfare patients, particular racial and ethnic minorities, or persons confined to institutions) are being systematically selected simply because of their easy availability, their compromised position, or their manipulability, rather than for reasons directly related to the problem being studied. Finally, whenever research supported by public funds leads to the development of therapeutic devices and procedures, justice demands both that these not provide advantages only to those who can afford them and that such research should not unduly involve persons from groups unlikely to be among the beneficiaries of subsequent applications of the research.

### **C. Applications**

Applications of the general principles to the conduct of research leads to consideration of the following requirements: informed consent, risk/benefit assessment, and the selection of subjects of research.

**1. Informed Consent.** Respect for persons requires that subjects, to the degree that they are capable, be given the opportunity to choose what shall or shall not happen to them. This opportunity is provided when adequate standards for informed consent are satisfied.

While the importance of informed consent is unquestioned, controversy prevails over the nature and possibility of an informed consent. Nonetheless, there is widespread agreement that the consent process can be analyzed as containing three elements: information, comprehension and voluntariness.

**Information.** Most codes of research establish specific items for disclosure intended to assure that subjects are given sufficient information. These items generally include: the research procedure, their purposes, risks and anticipated benefits, alternative procedures (where therapy is involved), and a statement offering the subject the opportunity to ask questions and to withdraw at any time from the research. Additional items have been proposed, including how subjects are selected, the person responsible for the research, etc.

However, a simple listing of items does not answer the question of what the standard should be for judging how much and what sort of information should be provided. One standard frequently invoked in medical practice, namely the information commonly provided by practitioners in the field or in the locale, is inadequate since research takes place precisely when a common understanding does not exist. Another standard, currently popular in malpractice law, requires the practitioner to reveal the information that reasonable persons would wish to know in order to make a decision regarding their care. This, too, seems insufficient since the research subject, being in essence a volunteer, may wish to know considerably more about risks gratuitously undertaken than do patients who deliver themselves into the hand of a clinician for needed care. It may be that a standard of "the reasonable volunteer" should be proposed: the extent and nature of information should be such that persons, knowing that the procedure is neither necessary for their care nor perhaps fully understood, can decide whether they wish to participate in the furthering of knowledge. Even when some direct benefit to them is anticipated, the subjects should understand clearly the range of risk and the voluntary nature of participation.

A special problem of consent arises where informing subjects of some pertinent aspect of the research is likely to impair the validity of the research. In many cases, it is sufficient to indicate to subjects that they are being invited to participate in research of which some features will not be revealed until the research is concluded. In all cases of research involving incomplete disclosure, such research is justified only if it is clear that (1) incomplete disclosure is truly necessary to accomplish the goals of the research, (2) there are no undisclosed risks to subjects that are more than minimal, and (3) there is an adequate plan for debriefing subjects, when appropriate, and for dissemination of research results to them. Information about risks should never be withheld for the purpose of eliciting the cooperation of subjects, and truthful answers should always be given to direct questions about the research. Care should be taken to distinguish cases in which disclosure would destroy or invalidate the research from cases in which disclosure would simply inconvenience the investigator.

**Comprehension.** The manner and context in which information is conveyed is as important as the information itself. For example, presenting information in a disorganized and rapid fashion, allowing too little time for consideration or curtailing opportunities for questioning, all may adversely affect a subject's ability to make an informed choice.

Because the subject's ability to understand is a function of intelligence, rationality, maturity and language, it is necessary to adapt the presentation of the information to the subject's capacities. Investigators are responsible for ascertaining that the subject has comprehended the information. While there is always an obligation to ascertain that

the information about risk to subjects is complete and adequately comprehended, when the risks are more serious, that obligation increases. On occasion, it may be suitable to give some oral or written tests of comprehension.

Special provision may need to be made when comprehension is severely limited—for example, by conditions of immaturity or mental disability. Each class of subjects that one might consider as incompetent (eg, infants and young children, mentally disable patients, the terminally ill and the comatose) should be considered on its own terms. Even for these persons, however, respect requires giving them the opportunity to choose to the extent they are able, whether or not to participate in research. The objections of these subjects to involvement should be honored, unless the research entails providing them a therapy unavailable elsewhere. Respect for persons also requires seeking the permission of other parties in order to protect the subjects from harm. Such persons are thus respected both by acknowledging their own wishes and by the use of third parties to protect them from harm.

The third parties chosen should be those who are most likely to understand the incompetent subject's situation and to act in that person's best interest. The person authorized to act on behalf of the subject should be given an opportunity to observe the research as it proceeds in order to be able to withdraw the subject from the research, if such action appears in the subject's best interest.

**Voluntariness.** An agreement to participate in research constitutes a valid consent only if voluntarily given. This element of informed consent requires conditions free of coercion and undue influence. Coercion occurs when an overt threat of harm is intentionally presented by one person to another in order to obtain compliance. Undue influence, by contrast, occurs through an offer of an excessive, unwarranted, inappropriate or improper reward or other overture in order to obtain compliance. Also, inducements that would ordinarily be acceptable may become undue influences if the subject is especially vulnerable.

Unjustifiable pressures usually occur when persons in positions of authority or commanding influence—especially where possible sanctions are involved—urge a course of action for a subject. A continuum of such influencing factors exists, however, and it is impossible to state precisely where justifiable persuasion ends and undue influence begins. But undue influence would include actions such as manipulating a person's choice through the controlling influence of a close relative and threatening to withdraw health services to which an individual would otherwise be entitled.

**2. Assessment of Risks and Benefits.** The assessment of risks and benefits requires a careful array of relevant data, including, in some cases, alternative ways of obtaining the benefits sought in the research. Thus, the assessment presents both an opportunity and a responsibility to gather systematic and comprehensive information about proposed research. For the investigator, it is a means to examine whether the proposed research is properly designed. For a review committee, it is a method for determining whether the risks that will be presented to subjects are justified. For prospective subjects, the assessment will assist the determination whether or not to participate.

**The Nature and Scope of Risks and Benefits.** The requirement that research be justified on the basis of a favorable risk/benefit assessment bears a close relation to the principle of beneficence, just as the moral requirement that informed consent be obtained is derived primarily from the principle of respect for persons. The term "risk" refers to a possibility that harm may occur. However, when expressions such as "small risk" or "high risk" are used, they usually refer (often ambiguously) both to the chance (probability) of experiencing a harm and the severity (magnitude) of the envisioned harm.

The term "benefit" is used in the research context to refer to something of positive value related to health or welfare. Unlike, "risk," "benefit" is not a term that expresses probabilities. Risk is properly contrasted to probability of benefits, and benefits are properly contrasted with harms rather than risks of harm. Accordingly, so-called risk/benefit assessments are concerned with the probabilities and magnitudes of possible harm and anticipated benefits. Many kinds of possible harms and benefits need to be taken into account. There are, for example, risks of psychological harm, physical harm, legal harm, social harm and economic harm and the corresponding benefits. While the most likely types of harms to research subjects are those of psychological or physical pain or injury, other possible kinds should not be overlooked.

Risks and benefits of research may affect the individual subjects, the families of the individual subjects, and society at large (or special groups of subjects in society). Previous codes and Federal regulations have required that risks to subjects be outweighed by the sum of both the anticipated benefit to the subject, if any, and the anticipated benefit to society in the form of knowledge to be gained from the research. In balancing these different elements, the risks and benefits affecting the immediate research subject will normally carry special weight. On the other hand, interests other than those of the subject may on some occasions be sufficient by themselves to justify the risks involved in the research, so long as the subjects' rights have been protected. Beneficence thus requires that we protect against risk of harm to subjects and also that we be concerned about the loss of the substantial benefits that might be gained from research.

**The Systematic Assessment of Risks and Benefits.** It is commonly said that benefits and risks must be "balanced" and shown to be "in a favorable ratio." The metaphorical character of these terms draws attention to the difficulty of making precise judgments. Only on rare occasions will quantitative techniques be available for the scrutiny of research protocols. However, the idea of systematic, nonarbitrary analysis of risks and benefits should be emulated insofar as possible. This ideal requires those making decisions about the justifiability of research to be thorough in the accumulation and assessment of information about all aspects of the research, and to consider alternatives systematically. This procedure renders the assessment of research more rigorous and precise, while making

communication between review board members and investigators less subject to misinterpretation, misinformation and conflicting judgments. Thus, there should first be a determination of the validity of the presuppositions of the research; then the nature, probability and magnitude of risk should be distinguished with as much clarity as possible. The method of ascertaining risks should be explicit, especially where there is no alternative to the use of such vague categories as small or slight risk. It should also be determined whether an investigator's estimates of the probability of harm or benefits are reasonable, as judged by known facts or other available studies.

Finally, assessment of the justifiability of research should reflect at least the following considerations: (i) Brutal or inhumane treatment of human subjects is never morally justified. (ii) Risks should be reduced to those necessary to achieve the research objective. It should be determined whether it is in fact necessary to use human subjects at all. Risk can perhaps never be entirely eliminated, but it can often be reduced by careful attention to alternative procedures. (iii) When research involves significant risk of serious impairment, review committees should be extraordinarily insistent on the justification of the risk (looking usually to the likelihood of benefit to the subject—or, in some rare cases, to the manifest voluntariness of the participation). (iv) When vulnerable populations are involved in research, the appropriateness of involving them should itself be demonstrated. A number of variables go into such judgments, including the nature and degree of risk, the condition of the particular population involved, and the nature and level of the anticipated benefits. (v) Relevant risks and benefits must be thoroughly arrayed in documents and procedures used in the informed consent process.

**3. Selection of Subjects.** Just as the principle of respect for persons finds expression in the requirements for consent, and the principle of beneficence in risk/benefit assessment, the principle of justice gives rise to moral requirements that there be fair procedures and outcomes in the selection of research subjects.

Justice is relevant to the selection of subjects of research at two levels: the social and the individual. Individual justice in the selection of subjects would require that researchers exhibit fairness: thus, they should not offer potentially beneficial research only to some patients who are in their favor or select only “undesirable” persons for risky research. Social justice requires that distinction be drawn between classes of subjects that ought, and ought not, to participate in any particular kind of research, based on the ability of members of that class to bear burdens and on the appropriateness of placing further burdens on already burdened persons. Thus, it can be considered a matter of social justice that there is an order of preference in the selection of classes of subjects (eg, adults before children) and that some classes of potential subjects (eg, the institutionalized mentally infirm or prisoners) may be involved as research subjects, if at all, only on certain conditions.

Injustice may appear in the selection of subjects, even if individual subjects are selected fairly by investigators and treated fairly in the course of research. Thus injustice arises from social, racial, sexual and cultural biases institutionalized in society. Thus, even if individual researchers are treating their research subjects fairly, and even if IRBs are taking care to assure that subjects are selected fairly within a particular institution, unjust social patterns may nevertheless appear in the overall distribution of the burdens and benefits of research. Although individual institutions or investigators may not be able to resolve a problem that is pervasive in their social setting, they can consider distributive justice in selecting research subjects.

Some populations, especially institutionalized ones, are already burdened in many ways by their infirmities and environments. When research is proposed that involves risks and does not include a therapeutic component, other less burdened classes of persons should be called upon first to accept these risks of research, except where the research is directly related to the specific conditions of the class involved. Also, even though public funds for research may often flow in the same directions as public funds for health care, it seems unfair that populations dependent on public health care constitute a pool of preferred research subjects if more advantaged populations are likely to be the recipients of the benefits.

One special instance of injustice results from the involvement of vulnerable subjects. Certain groups, such as racial minorities, the economically disadvantaged, the very sick, and the institutionalized may continually be sought as research subjects, owing to their ready availability in settings where research is conducted. Given their dependent status and their frequently compromised capacity for free consent, they should be protected against the danger of being involved in research solely for administrative convenience, or because they are easy to manipulate as a result of their illness or socioeconomic condition.

National Institutes of Health  
Bethesda, Maryland 20892

#### Endnotes:

1. Since 1945, various codes for the proper and responsible conduct of human experimentation in medical research have been adopted by different organizations. The best known of these codes are the Nuremberg Code of 1947, the Helsinki Declaration of 1964 (revised in 1975), and the 1971 Guidelines (codified into Federal Regulations in 1974) issued by the US Department of Health, Education, and Welfare. Codes for the conduct of social and behavioral research have also been adopted, the best known being that of the Ameri-

- can Psychological Association, published in 1973.
2. Although practice usually involves interventions designed solely to enhance the well-being of a particular individual, interventions are sometimes applied to one individual for the enhancement of the well-being of another (eg, blood donation, skin grafts, organ transplants) or an intervention may have the dual purpose of enhancing the well-being of a particular individual, and, at the same time, providing some benefit to others (eg, vaccination, which protects both the person who is vaccinated and society generally). The fact that some forms of practice have elements other than immediate benefit to the individual receiving an intervention, however, should not confuse the general distinction between research and practice. Even when a procedure applied in practice may benefit some other person, it remains an intervention designed to enhance the well-being of a particular individual or groups of individuals; thus, it is practice and need not be reviewed as research.
  3. Because the problems related to social experimentation may differ substantially from those of biomedical and behavioral research, the Commission specifically declines to make any policy determination regarding such research at this time. Rather, the Commission believes that the problem ought to be addressed by one of its successor bodies.

Available at: <http://ohrp.osophs.dhhs.gov/humansubjects/guidance/belmont.htm>. Accessed 23 April 2002; formatted to *Text-books of Military Medicine* style.



## CHAPTER 19: ATTACHMENT 2

### 1991 INTERNATIONAL GUIDELINES FOR ETHICAL REVIEW OF EPIDEMIOLOGICAL STUDIES

#### INTRODUCTION

These Guidelines are intended for investigators, health policy-makers, members of ethical review committees, and others who have to deal with ethical issues that arise in epidemiology. They may also assist in the establishment of standards for ethical review of epidemiological studies.

The Guidelines are an expression of concern to ensure that epidemiological studies observe ethical standards. These standards apply to all who undertake any of the types of activity covered by the Guidelines. Investigators must always be held responsible for the ethical integrity of their studies.

Epidemiology is defined as the study of the distribution and determinants of health-related states or events in specified populations, and the application of this study to control of health problems.

Epidemiology has greatly improved the human condition in the present century. It has clarified our understanding of many physical, biological and behavioural dangers to health. Some of the knowledge obtained has been applied to the control of environmental and biological threats to health, such as diseases due to drinking polluted water. Other epidemiological knowledge has become part of popular culture, leading to changed values and behaviour, and thus has led to improved health: examples include attitudes towards personal hygiene, tobacco smoking, diet and exercise in relation to heart disease, and the use of seat-belts to reduce the risk of traffic injury and death.

Epidemiological practice and research are based mostly on observation, and require no intervention more invasive than asking questions and carrying out routine medical examinations. Practice and research may overlap, as, for example, when both routine surveillance of cancer and original research on cancer are conducted by professional staff of a population-based cancer registry.

Epidemiological research is of two main types: observational and experimental:

Three types of observational epidemiological research are distinguished: *cross-sectional studies* (also known as surveys), *case-control studies*, and *cohort studies*. These types of study carry minimal risk to study subjects. They involve no intervention other than asking questions, carrying out medical examinations and, sometimes, laboratory tests or x-ray examinations. The informed consent of subjects is normally required, although there are some exceptions—for example, very large cohort studies conducted exclusively by examining medical records.

A *cross-sectional study* (survey) is commonly done on a random sample of a population. Study subjects are asked questions, medically examined, or asked to submit to laboratory tests. Its aim is to assess aspects of the health of a population, or to test hypotheses about possible causes of disease or suspected risk factors.

A *case-control study* compares the past history of exposure to risk among patients who have a specified condition (cases) with the past history of exposure to this risk among persons who resemble the cases in such respects as age and sex, but do not have the specified condition (controls). Differing frequency of past exposure among cases and controls can be statistically analysed to test hypotheses about causes or risk factors. Case-control studies are the method of choice for testing hypotheses about rare conditions, because they can be done with small numbers of cases. They generally do not involve invasion of privacy or violation of confidentiality. If a case-control study requires direct contact between research workers and study subjects, informed consent to participation in the study is required; if it entails only a review of medical records, informed consent may not be required and indeed may not be feasible.

In a *cohort study*, also known as a longitudinal or prospective study, individuals with differing exposure levels to suspected risk factors are identified and observed over a period, commonly years, and the rates of occurrence of the condition of interest are measured and compared in relation to exposure levels. This is a more robust research method than a cross-sectional or case-control study, but it requires study of large numbers for a long time and is costly. Usually it requires only asking questions and routine medical examinations; sometimes it requires laboratory tests. Informed consent is normally required, but an exception to this requirement is a retrospective cohort study that uses linked medical records. In a retrospective cohort study, the initial or base-line observations may relate to exposure many years earlier to a potentially harmful agent, such as x-rays, a prescribed drug or an occupational hazard, about which details are known; the final or endpoint observations are often obtained from death certificates. Numbers of subjects may be very large, perhaps millions, so it would be impracticable to obtain their informed consent. It is essential to identify precisely every individual studied; this is achieved by methods of matching that are built into record linkage systems. After identities have been established to compile the statistical tables, all personal identifying information is obliterated, and therefore privacy and confidentiality are safeguarded.

An experiment is a study in which the investigator intentionally alters one or more factors under controlled conditions to study the effects of doing so. The usual form of epidemiological experiment is the *randomized controlled trial*, which is done to test a preventive or therapeutic regimen or diagnostic procedure. Such experiments involving human subjects should be regarded as unethical unless there is genuine uncertainty about the regimen or procedure and this uncertainty can be clarified by research.

Usually in this form of experiment, subjects are allocated at random to groups, one group to receive, the other group not to receive, the experimental regimen or procedure. The experiment compares the outcomes in the two groups. Random allocation removes the effects of bias, which would destroy the validity of comparisons between the groups. Since it is always possible that harm may be caused to at least some of the subjects, their informed consent is essential.

Epidemiology is facing new challenges and opportunities. The application of information technology to large data-files has expanded the role and capacity of epidemiological studies. The acquired immunodeficiency syndrome (AIDS) epidemic and its management have given epidemiological studies new urgency; public health authorities are using population-screening studies to establish prevalence levels of human immunodeficiency virus (HIV) infection for purposes of monitoring and restricting the spread of infection. Ahead lie entirely new challenges, such as those arising from the conjunction of molecular and population genetics.

## PREAMBLE

The general conduct of biomedical studies is guided by statements of internationally recognized principles of human rights, including the Nuremberg Code and the World Medical Association's Declaration of Helsinki, as revised (Helsinki IV). These principles also underlie the Proposed International Guidelines for Biomedical Research Involving Human Subjects, issued by the Council for International Organizations of Medical Sciences in 1982. These and similar national codes are based on the model of clinical medicine, and often address interests of "patients" or individual "subjects." Epidemiological research concerns groups of people, and the above codes do not adequately cover its special features. Proposals for epidemiological studies should be reviewed independently on ethical grounds.

Ethical issues often arise as a result of conflict among competing sets of values, such as, in the field of public health, the conflict between the rights of individuals and the needs of communities. Adherence to these guidelines will not avoid all ethical problems in epidemiological studies. Many situations require careful discussion and informed judgement on the part of investigators, ethical review committees, administrators, health-care practitioners, policy-makers, and community representatives. Externally sponsored epidemiological studies in developing countries merit special attention. A framework for the application of these guidelines is set by the laws and practices in each jurisdiction in which it is proposed to undertake studies.

The purpose of ethical review is to consider the features of a proposed study in the light of ethical principles, so as to ensure that investigators have anticipated and satisfactorily resolved possible ethical objections, and to assess their responses to ethical issues raised by the study. Not all ethical principles weigh equally. A study may be assessed as ethical even if a usual ethical expectation, such as confidentiality of data, has not been comprehensively met, provided the potential benefits clearly outweigh the risks and the investigators give assurances of minimizing risks. It may even be unethical to reject such a study, if its rejection would deny a community the benefits it offers. The challenge of ethical review is to make assessments that take into account potential risks and benefits, and to reach decisions on which members of ethical review committees may reasonably differ.

Different conclusions may result from different ethical reviews of the same issue or proposal, and each conclusion may be ethically reached, given varying circumstances of place and time; a conclusion is ethical not merely because of what has been decided but also owing to the process of conscientious reflection and assessment by which it has been reached.

## GENERAL ETHICAL PRINCIPLES

All research involving human subjects should be conducted in accordance with four basic ethical principles, namely *respect for persons*, *beneficence*, *non-maleficence*, and *justice*. It is usually assumed that these principles guide the conscientious preparation of proposals for scientific studies. In varying circumstances, they may be expressed differently and given different weight, and their application, in all good faith, may have different effects and lead to different decisions or courses of action. These principles have been much discussed and clarified in recent decades, and it is the aim of these Guidelines that they be applied to epidemiology.

*Respect for persons* incorporates at least two other fundamental ethical principles, namely:

- (a) *autonomy*, which requires that those who are capable of deliberation about their personal goals should be treated with respect for their capacity for self-determination; and
- (b) *protection of persons* with impaired or diminished autonomy, which requires that those who are dependent or vulnerable be afforded security against harm or abuse.

*Beneficence* is the ethical obligation to maximize possible benefits and to minimize possible harms and wrongs. This principle gives rise to norms requiring that the risks of research be reasonable in the light of the expected benefits, that the research design be sound, and that the investigators be competent both to conduct the research and to assure the well-being of the research subjects.

*Non-maleficence* ("Do no harm") holds a central position in the tradition of medical ethics, and guards against

avoidable harm to research subjects.

*Justice* requires that cases considered to be alike be treated alike, and that cases considered to be different be treated in ways that acknowledge the difference. When the principle of justice is applied to dependent or vulnerable subjects, its main concern is with the rules of *distributive justice*. Studies should be designed to obtain knowledge that benefits the class of persons of which the subjects are representative: the class of persons bearing the burden should receive an appropriate benefit, and the class primarily intended to benefit should bear a fair proportion of the risks and burdens of the study.

The rules of distributive justice are applicable within and among communities. Weaker members of communities should not bear disproportionate burdens of studies from which all members of the community are intended to benefit, and more dependent communities and countries should not bear disproportionate burdens of studies from which all communities or countries are intended to benefit. General ethical principles may be applied at individual and community levels. At the level of the individual (*microethics*), ethics governs how one person should relate to another and the moral claims of each member of a community. At the level of the community, ethics applies to how one community relates to another, and to how a community treats each of its members (including prospective members) and members of other groups with different cultural values (*macroethics*). Procedures that are unethical at one level cannot be justified merely because they are considered ethically acceptable at the other.

## ETHICAL PRINCIPLES APPLIED TO EPIDEMIOLOGY

### Informed Consent

#### Individual Consent

1. When individuals are to be subjects of epidemiological studies, their informed consent will usually be sought. For epidemiological studies that use personally identifiable private data, the rules for informed consent vary, as discussed further below. Consent is informed when it is given by a person who understands the purpose and nature of the study, what participation in the study requires the person to do and to risk, and what benefits are intended to result from the study.

2. An investigator who proposes not to seek informed consent has the obligation to explain to an ethical review committee how the study would be ethical in its absence: it may be impractical to locate subjects whose records are to be examined, or the purpose of some studies would be frustrated—for example, prospective subjects on being informed would change the behaviour that it is proposed to study, or might feel needlessly anxious about why they were subjects or study. The investigator will provide assurances that strict safeguards will be maintained to protect confidentiality and that the study is aimed at protecting or advancing health. Another justification for not seeking informed consent may be that subjects are made aware through public announcements that it is customary to make personal data available for epidemiological studies.

3. An ethical issue may arise when occupational records, medical records, tissue samples, etc. are used for a purpose for which consent was not given, although the study threatens no harm. Individuals or their public representatives should normally be told that their data might be used in epidemiological studies, and what means of protecting confidentiality are provided. Consent is not required for use of publicly available information, although countries and communities differ with regard to the definition of what information about citizens is regarded as public. However, when such information is to be used, it is understood that investigators will minimize disclosure of personally sensitive information.

4. Some organizations and government agencies employ epidemiologists who may be permitted by legislation or employees' contracts to have access to data without subjects' consent. These epidemiologists must then consider whether it is ethical for them, in a given case, to use this power of access to personal data. Ethically, they may still be expected either to seek the consent of the individuals concerned, or to justify their access without such consent. Access may be ethical on such grounds as minimal risk of harm to individuals, public benefit, and investigators' protection of the confidentiality of the individuals whose data they study.

#### Community Agreement

5. When it is not possible to request informed consent from every individual to be studied, the agreement of a representative of a community or group may be sought, but the representative should be chosen according to the nature, traditions and political philosophy of the community or group. Approval given by a community representative should be consistent with general ethical principles. When investigators work with communities, they will consider communal rights and protection as they would individual rights and protection. For communities in which collective decision-making is customary, communal leaders can express the collective will. However, the refusal of individuals to participate in a study has to be respected: a leader may express agreement on behalf of a community, but an individual's refusal of personal participation is binding.

6. When people are appointed by agencies outside a group, such as a department of government, to speak for members of the group, investigators and ethical review committees should consider how authentically these people speak for the group, and if necessary seek also the agreement of other representatives. Representatives of a community or group may sometimes be in a position to participate in designing the study and in its ethical assessment.

7. The definition of a community or group for purposes of epidemiological study may be a matter of ethical concern. When members of a community are naturally conscious of its activities as a community and feel common interests with other members, the community exists, irrespective of the study proposal. Investigators will be sensitive to how a community is constituted or defines itself, and will respect the rights of underprivileged groups.

8. For purposes of epidemiological study, investigators may define groups that are composed of statistically, geographically or otherwise associated individuals who do not normally interact socially. When such groups are artificially created for scientific study, group members may not readily be identifiable as leaders or representatives, and individuals may not be expected to risk disadvantage for the benefit of others. Accordingly, it will be more difficult to ensure group representation, and all the more important to obtain subjects' free and informed consent to participate.

#### ***Selective Disclosure of Information***

9. In epidemiology, an acceptable study technique involves selective disclosure of information, which seems to conflict with the principle of informed consent. For certain epidemiological studies non-disclosure is permissible, even essential, so as to not influence the spontaneous conduct under investigation, and to avoid obtaining responses that the respondent might give in order to please the questioner. Selective disclosure may be benign and ethically permissible, provided that it does not induce subjects to do what they would not otherwise consent to do. An ethical review committee may permit disclosure of only selected information when this course is justified.

#### ***Undue Influence***

10. Prospective subjects may not feel free to refuse requests from those who have power or influence over them. Therefore the identity of the investigator or other person assigned to invite prospective subjects to participate must be made known to them. Investigators are expected to explain to the ethical review committee how they propose to neutralize such apparent influence. It is ethically questionable whether subjects should be recruited from among groups that are unduly influenced by persons in authority over them or by community leaders, if the study can be done with subjects who are not in this category.

#### ***Inducement to Participate***

11. Individuals or communities should not be pressured to participate in a study. However, it can be hard to draw the line between exerting pressure or offering inappropriate inducements and creating legitimate motivation. The benefits of a study, such as increased or new knowledge, are proper inducements. However, when people or communities lack basic health services or money, the prospect of being rewarded by goods, services or cash payments can induce participation. To determine the ethical propriety of such inducements, they must be assessed in the light of the traditions of the culture.

12. Risks involved in participation should be acceptable to subjects even in the absence of inducement. It is acceptable to repay incurred expenses, such as for travel. Similarly, promises of compensation and care for damage, injury or loss of income should not be considered inducements.

#### ***Maximizing Benefit***

#### ***Communication of Study Results***

13. Part of the benefit that communities, groups and individuals may reasonably expect from participating in studies is that they will be told of findings that pertain to their health. Where findings could be applied in public health measures to improve community health, they should be communicated to the health authorities. In informing individuals of the findings and their pertinence to health, their level of literacy and comprehension must be considered. Research protocols should include provision for communicating such information to communities and individuals.

Research findings and advice to communities should be publicized by whatever suitable means are available. When HIV-prevalence studies are conducted by unlinked anonymous screening, there should be, where feasible, provision for voluntary HIV-antibody testing under conditions of informed consent, with pre- and post-test counseling, and assurance of confidentiality.

#### ***Impossibility of Communicating Study Results***

14. Subjects of epidemiological studies should be advised that it may not be possible to inform them about findings that pertain to their health, but that they should not take this to mean that they are free of the disease or condition under study. Often it may not be possible to extract from pooled findings information pertaining to individuals and their families, but when findings indicate a need of health care, those concerned should be advised of means of obtaining personal diagnosis and advice.

When epidemiological data are unlinked, a disadvantage to subjects is that individuals at risk cannot be informed of useful findings pertinent to their health. When subjects cannot be advised individually to seek medical attention, the ethical duty to do good can be served by making pertinent health-care advice available to their communities.

#### ***Release of Study Results***

15. Investigators may be unable to compel release of data held by governmental or commercial agencies, but as health professionals they have an ethical obligation to advocate the release of information that is in the public interest.

Sponsors of studies may press investigators to present their findings in ways that advance special interests, such as to show that a product or procedure is or is not harmful to health. Sponsors must not present interpretations or inferences, or theories and hypotheses, as if they were proven truths.



### ***Healthcare for the Community Under Study***

16. The undertaking of an epidemiological project in a developing country may create the expectation in the community concerned that it will be provided with health care, at least while the research workers are present. Such an expectation should not be frustrated, and, where people need health care, arrangements should be made to have them treated or they should be referred to a local health service that can provide the needed care.

### ***Training Local Health Personnel***

17. While studies are in progress, particularly in developing countries, the opportunity should be taken to train local health workers in skills and techniques that can be used to improve health services. For instance, by training them in the operation of measuring devices and calculating machines, when a study team departs it leaves something of value, such as the ability to monitor disease or mortality rates.

### ***Minimizing Harm***

#### ***Causing Harm and Doing Wrong***

18. Investigators planning studies will recognize the risk of causing harm, in the sense of bringing disadvantage, and of doing wrong, in the sense of transgressing values. Harm may occur, for instance, when scarce health personnel are diverted from their routine duties to serve the needs of a study, or when, unknown to a community, its health-care priorities are changed. It is wrong to regard members of communities as only impersonal material for study, even if they are not harmed.

19. Ethical review must always assess the risk of subjects or groups suffering stigmatization, prejudice, loss of prestige or self-esteem, or economic loss as a result of taking part in a study. Investigators will inform ethical review committees and prospective subjects of perceived risks, and of proposals to prevent or mitigate them. Investigators must be able to demonstrate that the benefits outweigh the risks for both individuals and groups. There should be a thorough analysis to determine who would be at risk and who would benefit from the study. It is unethical to expose persons to avoidable risks disproportionate to the expected benefits, or to permit a known risk to remain if it can be avoided or at least minimized.

20. When a healthy person is a member of a population or sub-group at raised risk and engages in high-risk activities, it is unethical not to propose measures for protecting the population or sub-group.

#### ***Preventing Harm to Groups***

21. Epidemiological studies may inadvertently expose groups as well as individuals to harm, such as economic loss, stigmatization, blame, or withdrawal of services. Investigators who find sensitive information that may put a group at risk of adverse criticism or treatment should be discreet in communicating and explaining their findings. When the location or circumstances of a study are important to understanding the results, the investigators will explain by what means they propose to protect the group from harm or disadvantage; such means include provisions for confidentiality and the use of language that does not imply moral criticism of subjects' behaviour.

#### ***Harmful Publicity***

22. Conflict may appear between, on the one hand, doing no harm and, on the other, telling the truth and openly disclosing scientific findings. Harm may be mitigated by interpreting data in a way that protects the interests of those at risk, and is at the same time consistent with scientific integrity. Investigators should, where possible, anticipate and avoid misinterpretation that might cause harm.

#### ***Respect for Social Moeres***

23. Disruption of social moeres is usually regarded as harmful. Although cultural values and social moeres must be respected, it may be a specific aim of an epidemiological study to stimulate change in certain customs or conventional behaviour to lead through change to healthful behaviour—for instance, with regard to diet or a hazardous occupation.

24. Although members of communities have a right not to have others impose an uninvited "good" on them, studies expected to result in health benefits are usually considered ethically acceptable and not harmful. Ethical review committees should consider a study's potential for beneficial change. However, investigators should not overstate such benefits, in case a community's agreement to participate is unduly influenced by its expectation of better health services.

#### ***Sensitivity to Different Cultures***

25. Epidemiologists often investigate cultural groups other than their own, inside or outside their own countries, and undertake studies initiated from outside the culture, community or country in which the study is to be conducted. Sponsoring and host countries may differ in the ways in which, in their cultures, ethical values are understood and applied—for instance, with regard to autonomy of individuals.

Investigators must respect the ethical standards of their own countries and the cultural expectations of the societies in which epidemiological studies are undertaken, unless this implies a violation of a transcending moral rule. Investigators risk harming their reputation by pursuing work that host countries find acceptable but their own countries consider offensive. Similarly, they may transgress the cultural values of the host countries by uncritically conforming to the expectations of their own.

#### ***Confidentiality***

26. Research may involve collecting and storing data relating to individuals and groups, and such data, if disclosed to third parties, may cause harm or distress. Consequently, investigators should make arrangements for pro-

protecting the confidentiality of such data by, for example, omitting information that might lead to the identification of individual subjects, or limiting access to the data, or by other means. It is customary in epidemiology to aggregate numbers so that individual identities are obscured. Where group confidentiality cannot be maintained or is violated, the investigators should take steps to maintain or restore a group's good name and status. Information obtained about subjects is generally divisible into:

*Unlinked information*, which cannot be linked, associated or connected with the person to whom it refers; as this person is not known to the investigator, confidentiality is not at stake and the question of consent does not arise.

*Linked information*, which may be:

- anonymous, when the information cannot be linked to the person to whom it refers except by a code or other means known only to that person, and the investigator cannot know the identity of the person;
- non-nominal, when the information can be linked to the person by a code (not including personal identification) known to the person and the investigator; or
- nominal or nominative, when the information is linked to the person by means of personal identification, usually the name.

Epidemiologists discard personal identifying information when consolidating data for purposes of statistical analysis. Identifiable personal data will not be used when a study can be done without personal identification—for instance, in testing unlinked anonymous blood samples for HIV infection. When personal identifiers remain on records used for a study, investigators should explain to review committees why this is necessary and how confidentiality will be protected. If, with the consent of individual subjects, investigators link different sets of data regarding individuals, they normally preserve confidentiality by aggregating individual data into tables or diagrams. In government service the obligation to protect confidentiality is frequently reinforced by the practice of swearing employees to secrecy.

### **Conflict of Interest**

#### ***Identification of Conflict of Interest***

27. It is an ethical rule that investigators should have no undisclosed conflict of interest with their study collaborators, sponsors or subjects. Investigators should disclose to the ethical review committee any potential conflict of interest. Conflict can arise when a commercial or other sponsor may wish to use study results to promote a product or service, or when it may not be politically convenient to disclose findings.

28. Epidemiological studies may be initiated, or financially or otherwise supported, by governmental or other agencies that employ investigators. In the occupational and environmental health fields, several well-defined special-interest groups may be in conflict: shareholders, management, labour, government regulatory agencies, public interest advocacy groups, and others. Epidemiological investigators may be employed by any of these groups. It can be difficult to avoid pressures resulting from such conflict of interest, and consequent distorted interpretations of study findings. Similar conflict may arise in studies of the effects of drugs and in testing medical devices.

29. Investigators and ethical review committees will be sensitive to the risk of conflict, and committees will not normally approve proposals in which conflict of interest is inherent. If, exceptionally, such a proposal is approved, the conflict of interest should be disclosed to prospective subjects and their communities.

30. There may appear to be conflict when subjects do not want to change their behaviour and investigators believe that they ought to do so for the sake of their health. However, this may not be a true conflict of interest, as the investigators are motivated by the subjects' health interests.

#### ***Scientific Objectivity and Advocacy***

31. Honesty and impartiality are essential in designing and conducting studies, and presenting and interpreting findings. Data will not be withheld, misrepresented or manipulated. Investigators may discover health hazards that demand correction, and become advocates of means to protect and restore health. In this event, their advocacy must be seen to rely on objective, scientific data.

## **ETHICAL REVIEW PROCEDURES**

### ***Requirement of Ethical Review***

32. The provisions for ethical review in a society are influenced by economic and political considerations, the organization of health care and research, and the degree of independence of investigators. Whatever the circumstances, there is a responsibility to ensure that the Declaration of Helsinki and the CIOMS International Guidelines for Biomedical Research Involving Human Subjects are taken into account in epidemiological studies.

33. The requirement that proposals for epidemiological studies be submitted to independent ethical review applies irrespective of the source of the proposals—academic, governmental, health-care, commercial, or other. Sponsors should recognize the necessity of ethical review and facilitate the establishment of ethical review committees. Sponsors and investigators are expected to submit their proposals to ethical review, and this should not be overlooked even when sponsors have legal power to permit investigators access to data. An exception is justified when epidemiologists must investigate outbreaks of acute communicable diseases. Then they must proceed without delay

to identify and control health risks. They cannot be expected to await the formal approval of an ethical review committee. Nevertheless, in such circumstances the investigator will, as far as possible, respect the rights of individuals, namely freedom, privacy, and confidentiality.

#### ***Ethical Review Committees***

34. Ethical review committees may be created under the aegis of national or local health administrations, national medical research councils, or other nationally representative health-care bodies. The authority of committees operating on a local basis may be confined to one institution or extend to all biomedical studies undertaken in a defined political jurisdiction. However committees are created, and however their jurisdiction is defined, they should establish working rules—regarding, for instance, frequency of meetings, a quorum of members, decision-making procedures, and review of decisions, and they should issue such rules to prospective investigators.

35. In a highly centralized administration, a national review committee may be constituted to review study protocols from both scientific and ethical standpoints. In countries with a decentralized administration, protocols are more effectively and conveniently reviewed at a local or regional level. Local ethical review committees have two responsibilities:

- to verify that all proposed interventions have been assessed for safety by a competent expert body, and
- to ensure that all other ethical issues are satisfactorily resolved.

36. Local review committees act as a panel of investigators' peers, and their composition should be such as can ensure adequate review of the study proposals referred to them. Their membership should include epidemiologists, other health practitioners, and lay persons qualified to represent a range of community, cultural and moral values. Committees should have diverse composition and include representatives of any populations specially targeted for study. The members should change periodically to prevent individuals from becoming unduly influential, and to widen the network involved in ethical review. Independence from the investigators is maintained by precluding any member with a direct interest in a proposal from participating in its assessment.

#### ***Ethical Conduct of Members of Review Committees***

37. Ethical review committee members must carefully guard against any tendencies to unethical conduct on their own part. In particular, they should protect the confidentiality of review-committee documents and discussions. Also, they should not compel investigators to submit to unnecessary repetition of review.

#### ***Representation of the Community***

38. The community to be studied should be represented in the ethical review process. This is consistent with respect for the culture, the dignity and self-reliance of the community, and the aim of achieving community members' full understanding of the study. It should not be considered that lack of formal education disqualifies community members from joining in constructive discussion on issues relating to the study and the application of its findings.

#### ***Balancing Personal and Social Perspectives***

39. In performing reviews, committees will consider both personal and social perspectives. While, at the personal level, it is essential to ensure individual informed and free consent, such consent alone may not be sufficient to render a study ethical if the individual's community finds the study objectionable. Social values may raise broad issues that affect future populations and the physical environment. For example, in proposals for the widespread application of measures to control intermediate hosts of disease organisms, investigators will anticipate the effects of those measures on communities and the environment, and review committees will ensure that there is adequate provision for the investigators to monitor the application of the measures so as to prevent unwanted effects.

#### ***Assuring Scientific Soundness***

40. The primary functions of ethical review are to protect human subjects against risks of harm or wrong, and to facilitate beneficial studies. Scientific review and ethical review cannot be considered separately: a study that is scientifically unsound is unethical in exposing subjects to risk or inconvenience and achieving no benefit in knowledge. Normally, therefore, ethical review committees consider both scientific and ethical aspects. An ethical review committee may refer technical aspects of scientific review to a scientifically qualified person or committee, but will reach its own decision, based on such qualified advice, on scientific soundness. If a review committee is satisfied that a proposal is scientifically sound, it will then consider whether any risk to the subject is justified by the expected benefit, and whether the proposal is satisfactory with regard to informed consent and other ethical requirements.

#### ***Assessment of Safety and Quality***

41. All drugs and devices under investigation must meet adequate standards of safety. In this respect, many countries lack resources to undertake independent assessment of technical data. A governmental multidisciplinary committee with authority to co-opt experts is the most suitable body for assessing the safety and quality of medicines, devices and procedures. Such a committee should include clinicians, pharmacologists, statisticians and epidemiologists, among others; for epidemiological studies, epidemiologists occupy a position of obvious significance. Ethical review procedures should provide for consultation with such a committee.

#### ***Equity in the Selection of Subjects***

42. Epidemiological studies are intended to benefit populations, but individual subjects are expected to accept any risks associated with studies. When research is intended to benefit mostly the better off or healthier members of

a population, it is particularly important in selecting subjects to avoid inequity on the basis of age, socioeconomic status, disability or other variables. Potential benefits and harm should be distributed equitably within and among communities that differ on grounds of age, gender, race, or culture, or other variables.

***Vulnerable and Dependent Groups***

43. Ethical review committees should be particularly vigilant in the case of proposals involving populations primarily of children, pregnant and nursing women, persons with mental illness or handicap, members of communities unfamiliar with medical concepts, and persons with restricted freedom to make truly independent choices, such as prisoners and medical students. Similar vigilance is called for in the case of proposals for invasive research with no direct benefit to its subjects.

***Control Groups***

44. Epidemiological studies that require control (comparison) or placebo treated (ie, non-treated) groups are governed by the same ethical standards as those that apply to clinical trials. Important principles are that:

- (i) the control group in a study of a condition that can cause death, disability or serious distress should receive the most appropriate currently established therapy; and
- (ii) if a procedure being tested against controls is demonstrated to be superior, it should be offered promptly to members of the control group.

A study will be terminated prematurely if the outcome in one group is clearly superior to that in the other, and all subjects will be offered the better treatment. Research protocols should include “stopping rules,” ie, procedures to monitor for, and act upon, such an event. Investigators must continually bear in mind the potential benefits of the study to the control group, and the prospect of improved health care from applying the findings to the control group.

***Randomization***

45. Trials in which the choice of regimen or procedure is determined by random allocation should be conducted only when there is genuine uncertainty about differences in outcome of two or more regimens or procedures. Where randomization is to be used, all subjects will be informed of the uncertainty about optimum regimens or procedures, and that the reason for the trial is to determine which of two or more is in the subjects’ best interests. Informing subjects about such uncertainty can in itself arouse anxiety among patients, who may already be anxious for other reasons; therefore, tact and delicacy are required in communicating the information. Ethical review committees should ascertain whether investigators refer explicitly to informing subjects about this uncertainty, and should enquire what will be done to allay subjects’ anxiety about it.

Random allocation also can cause anxiety: persons chosen for, or excluded from, the experimental regimen or procedure may become anxious or concerned about the reasons for their being chosen or excluded. Investigators may have to communicate to members of the study population some basic concepts about application of the laws of chance, and reassure them that the process of random allocation is not discriminatory.

***Provision for Multi-centre Studies***

46. When participation in a multi-centre study is proposed according to a common protocol, a committee will respect different opinions of other committees, while not compromising on the application of the ethical standards that it expects investigators to observe; and it will attempt to reconcile differences so as to preserve the benefits that only a multi-centre study can achieve. One way of doing so could be to include in the common protocol the necessary procedures. Another would be for the several committees to delegate their review functions to a joint committee of the centres collaborating in the study.

***Compensation for Accidental Injury***

47. Some epidemiological studies may inadvertently cause harm. Monetary losses should be promptly repaid. Compensation is difficult when it is not appropriate to make monetary payments. Breach of confidentiality or insensitive publication of study findings, leading to loss of group prestige, or to indignity, may be difficult to remedy. When harm results from a study, the body that has sponsored or endorsed the study should be prepared to make good the injury, by public apology or reparation.

***Externally Sponsored Studies***

48. Externally sponsored studies are studies undertaken in a host country but initiated, financed, and sometimes wholly or partly carried out by an external international or national agency, with the collaboration or agreement of the authorities or the host country.

Such a study implies two ethical obligations:

- The initiating agency should submit the study protocol to ethical review, in which the ethical standards should be no less exacting than they would be for a study carried out in the initiating country.
- The ethical review committee in the host country should satisfy itself that the proposed study meets its own ethical requirements.

49. It is in the interest of the host country to require that proposals initiated and financed externally be submitted for ethical approval in the initiating country, and for endorsement by a responsible authority of the same country, such as a health administration, a research council, or an academy of medicine or science.



50. A secondary objective of externally sponsored studies should be the training of health personnel of the host country to carry out similar study projects independently.

51. Investigators must comply with the ethical rules of the funding country and the host country. Therefore, they must be prepared to submit study proposals to ethical review committees in each country. Alternatively, there may be agreement to the decision of a single or joint ethical review committee. Moreover, if an international agency sponsors a study, its own ethical review requirements may have to be satisfied.

***Distinguishing Between Research and Programme Evaluation***

52. It may at times be difficult to decide whether a particular proposal is for an epidemiological study or for evaluation of a programme on the part of a health-care institution or department. The defining attribute of research is that it is designed to produce new, generalizable knowledge, as distinct from knowledge pertaining only to a particular individual or programme.

For instance, a governmental or hospital department may want to examine patients' records to determine the safety and efficacy of a facility, unit or procedure. If the examination is for research purposes, the proposal should be submitted to the committee that considers the ethical features of research proposals. However, if it is for the purpose of programme evaluation, conducted perhaps by staff of the institution to evaluate a therapeutic programme for its effects, the proposal may not need to be submitted to ethical review; on the contrary, it could be considered poor practice and unethical not to undertake this type of quality assurance. The prospect of benefit or avoidance of harm to patients may constitute an ethical value that outweighs the risk of breaching the confidentiality of former patients whose medical records are liable to be inspected without their consent.

If it is not clear whether a proposal involves epidemiological study or routine practice, it should be submitted to the ethical review committee responsible for epidemiological protocols, for its opinion on whether the proposal falls within its mandate.

***Information to Be Provided by Investigators***

53. Whatever the pattern of the procedure of ethical review, the investigator must submit a detailed protocol comprising:

- a clear statement of the objectives, having regard to the present state of knowledge, and a justification for undertaking the investigation in human subjects;
- a precise description of all proposed procedures and interventions, including intended dosages of drugs and planned duration of treatment;
- a statistical plan indicating the number of subjects to be involved;
- the criteria for terminating the study; and
- the criteria determining admission and withdrawal of individual subjects, including full details of the procedure for obtaining informed consent.

Also, the protocol should:

- include information to establish the safety of each proposed procedure and intervention, and of any drug, vaccine or device to be tested, including the results of relevant laboratory and animal research;
- specify the presumed benefits to subjects, and the possible risks of proposed procedures;
- indicate the means and documents proposed to be used for eliciting informed consent, or, when such consent cannot be requested, state what approved alternative means of obtaining agreement will be used, and how it is proposed to protect the rights and assure the welfare of subjects;
- provide evidence that the investigator is properly qualified and experienced, or, when necessary, works under a competent supervisor, and that the investigator has access to adequate facilities for the safe and efficient conduct of the research;
- describe the proposed means of protecting confidentiality during the processing and publication of study results; and
- refer to any other ethical considerations that may be involved, and indicate that the provisions of the Declaration of Helsinki will be respected.

Available at: <http://www.cdc.gov/od/ads/intlgui3.htm>. Accessed 23 April 2002; formatted to *Textbooks of Military Medicine* style.

## CHAPTER 19: ATTACHMENT 3

### CODE OF FEDERAL REGULATIONS, TITLE 32—NATIONAL DEFENSE

#### CHAPTER I—OFFICE OF THE SECRETARY OF DEFENSE

#### PART 219—PROTECTION OF HUMAN SUBJECTS

##### Table of Contents

Sec. 219.101	To what does this policy apply?
Sec. 219.102	Definitions.
Sec. 219.103	Assuring compliance with this policy—research conducted or supported by any Federal Department or Agency.
Sec. 219.107	IRB membership.
Sec. 219.108	IRB functions and operations.
Sec. 219.109	IRB review of research.
Sec. 219.110	Expedited review procedures for certain kinds of research involving no more than minimal risk, and for minor changes in approved research.
Sec. 219.111	Criteria for IRB approval of research.
Sec. 219.112	Review by institution.
Sec. 219.113	Suspension or termination of IRB approval of research.
Sec. 219.114	Cooperative research.
Sec. 219.115	IRB records.
Sec. 219.116	General requirements for informed consent.
Sec. 219.117	Documentation of informed consent.
Sec. 219.118	Applications and proposals lacking definite plans for involvement of human subjects.
Sec. 219.119	Research undertaken without the intention of involving human subjects.
Sec. 219.120	Evaluation and disposition of applications and proposals for research to be conducted or supported by a Federal Department or Agency.
Sec. 219.122	Use of Federal funds.
Sec. 219.123	Early termination of research support: Evaluation of applications and proposals.
Sec. 219.124	Conditions.

#### Sec. 219.101 To what does this policy apply?

- (a) Except as provided in paragraph (b) of this section, this policy applies to all research involving human subjects conducted, supported or otherwise subject to regulation by any federal department or agency which takes appropriate administrative action to make the policy applicable to such research. This includes research conducted by federal civilian employees or military personnel, except that each department or agency head may adopt such procedural modifications as may be appropriate from an administrative standpoint. It also includes research conducted, supported, or otherwise subject to regulation by the federal government outside the United States.
  - (1) Research that is conducted or supported by a federal department or agency, whether or not it is regulated as defined in Sec. 219.102(e), must comply with all sections of this policy.
  - (2) Research that is neither conducted nor supported by a federal department or agency but is subject to regulation as defined in Sec. 219.102(e) must be reviewed and approved, in compliance with Sec. 219.101, Sec. 219.102, and Sec. 219.107 through Sec. 219.117 of this policy, by an institutional review board (IRB) that operates in accordance with the pertinent requirements of this policy.
- (b) Unless otherwise required by department or agency heads, research activities in which the only involvement of human subjects will be in one or more of the following categories are exempt from this policy:

- (1) Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.
- (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:
  - (i) Information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and
  - (ii) Any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.
- (3) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under paragraph (b)(2) of this section, if:
  - (i) The human subjects are elected or appointed public officials or candidates for public office; or
  - (ii) Federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.
- (4) Research, involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.
- (5) Research and demonstration projects which are conducted by or subject to the approval of department or agency heads, and which are designed to study, evaluate, or otherwise examine:
  - (i) Public benefit or service programs;
  - (ii) Procedures for obtaining benefits or services under those programs;
  - (iii) Possible changes in or alternatives to those programs or procedures; or
  - (iv) Possible changes in methods or levels of payment for benefits or services under those programs.
- (6) Taste and food quality evaluation and consumer acceptance studies,
  - (i) If wholesome foods without additives are consumed or
  - (ii) If a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture.
- (c) Department or agency heads retain final judgment as to whether a particular activity is covered by this policy.
- (d) Department or agency heads may require that specific research activities or classes of research activities conducted, supported, or otherwise subject to regulation by the department or agency but not otherwise covered by this policy, comply with some or all of the requirements of this policy.
- (e) Compliance with this policy requires compliance with pertinent federal laws or regulations which provide additional protections for human subjects.
- (f) This policy does not affect any state or local laws or regulations which may otherwise be applicable and which provide additional protections for human subjects.
- (g) This policy does not affect any foreign laws or regulations which may otherwise be applicable and which provide additional protections to human subjects of research.
- (h) When research covered by this policy takes place in foreign countries, procedures normally followed in the foreign countries to protect human subjects may differ from those set forth in this policy. (An example is a foreign institution which complies with guidelines consistent with the World Medical Assembly Declaration (Declaration of Helsinki amended 1989) issued either by sovereign states or by an organization whose function for the protection of human research subjects is internationally recognized.) In these circumstances, if a department or agency head determines that the procedures prescribed by the institution afford protections that are at least equivalent to those provided in this policy, the department or agency head may approve the substitution of the foreign procedures in lieu of the procedural requirements provided in this policy. Except when otherwise required by statute, Executive Order, or the department or agency head, notices of these actions as they occur will be published in the Federal Register or will be otherwise published as provided in department or agency procedures.<sup>1</sup>

- (i) Unless otherwise required by law, department or agency heads may waive the applicability of some or all of the provisions of this policy to specific research activities or classes of research activities otherwise covered by this policy. Except when otherwise required by statute or Executive Order, the department or agency head shall forward advance notices of these actions to the Office for Protection from Research Risks, Department of Health and Human Services (HHS), and shall also publish them in the Federal Register or in such other manner as provided in department or agency procedures.<sup>2</sup>

**Sec. 219.102** Definitions.

- (a) Department or agency head means the head of any federal department or agency and any other officer or employee of any department or agency to whom authority has been delegated.
- (b) Institution means any public or private entity or agency (including federal, state, and other agencies).
- (c) Legally authorized representative means an individual or judicial or other body authorized under applicable law to consent on behalf of a prospective subject to the subject's participation in the procedure(s) involved in the research.
- (d) Research means a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge. Activities which meet this definition constitute research for purposes of this policy, whether or not they are conducted or supported under a program which is considered research for other purposes. For example, some demonstration and service programs may include research activities.
- (e) Research subject to regulation, and similar terms are intended to encompass those research activities for which a federal department or agency has specific responsibility for regulating as a research activity, (for example, Investigational New Drug requirements administered by the Food and Drug Administration). It does not include research activities which are incidentally regulated by a federal department or agency solely as part of the department's or agency's broader responsibility to regulate certain types of activities whether research or non-research in nature (for example, Wage and Hour requirements administered by the Department of Labor).
- (f) Human subject means a living individual about whom an investigator (whether professional or student) conducting research obtains
  - (1) Data through intervention or interaction with the individual, or
  - (2) Identifiable private information.Intervention includes both physical procedures by which data are gathered (for example, venipuncture) and manipulations of the subject or the subject's environment that are performed for research purposes. Interaction includes communication or interpersonal contact between investigator and subject. "Private information" includes information about behavior that occurs in a context in which an individual can reasonably expect that no observation or recording is taking place, and information which has been provided for specific purposes by an individual and which the individual can reasonably expect will not be made public (for example, a medical record). Private information must be individually identifiable (ie, the identity of the subject is or may readily be ascertained by the investigator or associated with the information) in order for obtaining the information to constitute research involving human subjects.
- (g) IRB means an institutional review board established in accord with and for the purposes expressed in this policy.
- (h) IRB approval means the determination of the IRB that the research has been reviewed and may be conducted at an institution within the constraints set forth by the IRB and by other institutional and federal requirements.
- (i) Minimal risk means that the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests.
- (j) Certification means the official notification by the institution to the supporting department or agency, in accordance with the requirements of this policy, that a research project or activity involving human subjects has been reviewed and approved by an IRB in accordance with an approved assurance.



Sec. 219.103      Assuring compliance with this policy—research conducted or supported by any Federal Department or Agency.

- (a) Each institution engaged in research which is covered by this policy and which is conducted or supported by a federal department or agency shall provide written assurance satisfactory to the department or agency head that it will comply with the requirements set forth in this policy. In lieu of requiring submission of an assurance, individual department or agency heads shall accept the existence of a current assurance, appropriate for the research in question, on file with the Office for Protection from Research Risks, HHS, and approved for federalwide use by that office. When the existence of an HHS-approved assurance is accepted in lieu of requiring submission of an assurance, reports (except certification) required by this policy to be made to department and agency heads shall also be made to the Office for Protection from Research Risks, HHS.
- (b) Departments and agencies will conduct or support research covered by this policy only if the institution has an assurance approved as provided in this section, and only if the institution has certified to the department or agency head that the research has been reviewed and approved by an IRB provided for in the assurance, and will be subject to continuing review by the IRB. Assurances applicable to federally supported or conducted research shall at a minimum include:
  - (1) A statement of principles governing the institution in the discharge of its responsibilities for protecting the rights and welfare of human subjects of research conducted at or sponsored by the institution, regardless of whether the research is subject to federal regulation. This may include an appropriate existing code, declaration, or statement of ethical principles, or a statement formulated by the institution itself. This requirement does not preempt provisions of this policy applicable to department- or agency-supported or regulated research and need not be applicable to any research exempted or waived under Sec. 219.101 (b) or (i).
  - (2) Designation of one or more IRBs established in accordance with the requirements of this policy, and for which provisions are made for meeting space and sufficient staff to support the IRB's review and recordkeeping duties.
  - (3) A list of IRB members identified by name; earned degrees; representative capacity; indications of experience such as board certifications, licenses, etc., sufficient to describe each member's chief anticipated contributions to IRB deliberations; and any employment or other relationship between each member and the institution; for example: full-time employee, part-time employee, member of governing panel or board, stockholder, paid or unpaid consultant. Changes in IRB membership shall be reported to the department or agency head, unless in accord with Sec. 219.103(a) of this policy, the existence of an HHS-approved assurance is accepted. In this case, change in IRB membership shall be reported to the Office for Protection from Research Risks, HHS.
  - (4) Written procedures which the IRB will follow (i) for conducting its initial and continuing review of research and for reporting its findings and actions to the investigator and the institution; (ii) for determining which projects require review more often than annually and which projects need verification from sources other than the investigators that no material changes have occurred since previous IRB review; and (iii) for ensuring prompt reporting to the IRB of proposed changes in a research activity, and for ensuring that such changes in approved research, during the period for which IRB approval has already been given, may not be initiated without IRB review and approval except when necessary to eliminate apparent immediate hazards to the subject.
  - (5) Written procedures for ensuring prompt reporting to the IRB, appropriate institutional officials, and the department or agency head of (i) any unanticipated problems involving risks to subjects or others or any serious or continuing noncompliance with this policy or the requirements or determinations of the IRB and (ii) any suspension or termination of IRB approval.
- (c) The assurance shall be executed by an individual authorized to act for the institution and to assume on behalf of the institution the obligations imposed by this policy and shall be filed in such form and manner as the department or agency head prescribes.
- (d) The department or agency head will evaluate all assurances submitted in accordance with this policy through such officers and employees of the department or agency and such experts or consultants engaged for this purpose as the department or agency head determines to be appropriate. The department or agency head's evaluation will take into consideration the adequacy of the proposed IRB in light of the anticipated scope of the institution's research activities and the types of subject populations likely to be involved, the appropriateness of the proposed initial and continuing review procedures in light of the probable risks, and the size and complexity of the institution.

- (e) On the basis of this evaluation, the department or agency head may approve or disapprove the assurance, or enter into negotiations to develop an approvable one. The department or agency head may limit the period during which any particular approved assurance or class of approved assurances shall remain effective or otherwise condition or restrict approval.
- (f) Certification is required when the research is supported by a federal department or agency and not otherwise exempted or waived under Sec. 219.101 (b) or (i). An institution with an approved assurance shall certify that each application or proposal for research covered by the assurance and by Sec. 219.103 of this Policy has been reviewed and approved by the IRB. Such certification must be submitted with the application or proposal or by such later date as may be prescribed by the department or agency to which the application or proposal is submitted. Under no condition shall research covered by Sec. 219.103 of the Policy be supported prior to receipt of the certification that the research has been reviewed and approved by the IRB. Institutions without an approved assurance covering the research shall certify within 30 days after receipt of a request for such a certification from the department or agency, that the application or proposal has been approved by the IRB. If the certification is not submitted within these time limits, the application or proposal may be returned to the institution.

(Approved by the Office of Management and Budget under control number 9999-0020)

[56 FR 28012, 28021, June 18, 1991, as amended at 56 FR 29756, June 28, 1991]

Sec 219.104–219.106      Reserved

Sec. 219.107      IRB membership.

- (a) Each IRB shall have at least five members, with varying backgrounds to promote complete and adequate review of research activities commonly conducted by the institution. The IRB shall be sufficiently qualified through the experience and expertise of its members, and the diversity of the members, including consideration of race, gender, and cultural backgrounds and sensitivity to such issues as community attitudes, to promote respect for its advice and counsel in safeguarding the rights and welfare of human subjects. In addition to possessing the professional competence necessary to review specific research activities, the IRB shall be able to ascertain the acceptability of proposed research in terms of institutional commitments and regulations, applicable law, and standards of professional conduct and practice. The IRB shall therefore include persons knowledgeable in these areas. If an IRB regularly reviews research that involves a vulnerable category of subjects, such as children, prisoners, pregnant women, or handicapped or mentally disabled persons, consideration shall be given to the inclusion of one or more individuals who are knowledgeable about and experienced in working with these subjects.
- (b) Every nondiscriminatory effort will be made to ensure that no IRB consists entirely of men or entirely of women, including the institution's consideration of qualified persons of both sexes, so long as no selection is made to the IRB on the basis of gender. No IRB may consist entirely of members of one profession.
- (c) Each IRB shall include at least one member whose primary concerns are in scientific areas and at least one member whose primary concerns are in nonscientific areas.
- (d) Each IRB shall include at least one member who is not otherwise affiliated with the institution and who is not part of the immediate family of a person who is affiliated with the institution.
- (e) No IRB may have a member participate in the IRB's initial or continuing review of any project in which the member has a conflicting interest, except to provide information requested by the IRB.
- (f) An IRB may, in its discretion, invite individuals with competence in special areas to assist in the review of issues which require expertise beyond or in addition to that available on the IRB. These individuals may not vote with the IRB.

Sec. 219.108      IRB functions and operations.

In order to fulfill the requirements of this policy each IRB shall:

- (a) Follow written procedures in the same detail as described in Sec. 219.103(b)(4) and, to the extent required by, Sec. 219.103(b)(5).
- (b) Except when an expedited review procedure is used (see Sec. 219.110), review proposed research at convened meetings at which a majority of the members of the IRB are present, including at least one member whose primary concerns are in nonscientific areas. In order for the research to be approved, it shall receive the approval of a majority of those members present at the meeting.

**Sec. 219.109** IRB review of research.

- (a) An IRB shall review and have authority to approve, require modifications in (to secure approval), or disapprove all research activities covered by this policy.
- (b) An IRB shall require that information given to subjects as part of informed consent is in accordance with Sec. 219.116. The IRB may require that information, in addition to that specifically mentioned in Sec. 219.116, be given to the subjects when in the IRB's judgment the information would meaningfully add to the protection of the rights and welfare of subjects.
- (c) An IRB shall require documentation of informed consent or may waive documentation in accordance with Sec. 219.117.
- (d) An IRB shall notify investigators and the institution in writing of its decision to approve or disapprove the proposed research activity, or of modifications required to secure IRB approval of the research activity. If the IRB decides to disapprove a research activity, it shall include in its written notification a statement of the reasons for its decision and give the investigator an opportunity to respond in person or in writing.
- (e) An IRB shall conduct continuing review of research covered by this policy at intervals appropriate to the degree of risk, but not less than once per year, and shall have authority to observe or have a third party observe the consent process and the research.

(Approved by the Office of Management and Budget under control number 9999-0020)

**Sec. 219.110** Expedited review procedures for certain kinds of research involving no more than minimal risk, and for minor changes in approved research.

- (a) The Secretary, HHS, has established, and published as a Notice in the Federal Register, a list of categories of research that may be reviewed by the IRB through an expedited review procedure. The list will be amended, as appropriate after consultation with other departments and agencies, through periodic republication by the Secretary, HHS, in the Federal Register. A copy of the list is available from the Office for Protection from Research Risks, National Institutes of Health, HHS, Bethesda, Maryland 20892.
- (b) An IRB may use the expedited review procedure to review either or both of the following:
  - (1) Some or all of the research appearing on the list and found by the reviewer(s) to involve no more than minimal risk,
  - (2) Minor changes in previously approved research during the period (of one year or less) for which approval is authorized.

Under an expedited review procedure, the review may be carried out by the IRB chairperson or by one or more experienced reviewers designated by the chairperson from among members of the IRB. In reviewing the research, the reviewers may exercise all of the authorities of the IRB except that the reviewers may not disapprove the research. A research activity may be disapproved only after review in accordance with the non-expedited procedure set forth in Sec. 219.108(b).
- (c) Each IRB which uses an expedited review procedure shall adopt a method for keeping all members advised of research proposals which have been approved under the procedure.
- (d) The department or agency head may restrict, suspend, terminate, or choose not to authorize an institution's or IRB's use of the expedited review procedure.

**Sec. 219.111** Criteria for IRB approval of research.

- (a) In order to approve research covered by this policy the IRB shall determine that all of the following requirements are satisfied:
  - (1) Risks to subjects are minimized:
    - (i) By using procedures which are consistent with sound research design and which do not unnecessarily expose subjects to risk, and
    - (ii) Whenever appropriate, by using procedures already being performed on the subjects for diagnostic or treatment purposes.
  - (2) Risks to subjects are reasonable in relation to anticipated benefits, if any, to subjects, and the importance of the knowledge that may reasonably be expected to result. In evaluating risks and benefits, the IRB should consider only those risks and benefits that may result from the research (as distinguished from risks and benefits of therapies subjects would receive even if not participating in the research). The IRB should not consider possible long-range effects of applying knowledge gained in the research

(for example, the possible effects of the research on public policy) as among those research risks that fall within the purview of its responsibility.

- (3) Selection of subjects is equitable. In making this assessment the IRB should take into account the purposes of the research and the setting in which the research will be conducted and should be particularly cognizant of the special problems of research involving vulnerable populations, such as children, prisoners, pregnant women, mentally disabled persons, or economically or educationally disadvantaged persons.
  - (4) Informed consent will be sought from each prospective subject or the subject's legally authorized representative, in accordance with, and to the extent required by Sec. 219.116.
  - (5) Informed consent will be appropriately documented, in accordance with, and to the extent required by Sec. 219.117.
  - (6) When appropriate, the research plan makes adequate provision for monitoring the data collected to ensure the safety of subjects.
  - (7) When appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of data.
- (b) When some or all of the subjects are likely to be vulnerable to coercion or undue influence, such as children, prisoners, pregnant women, mentally disabled persons, or economically or educationally disadvantaged persons, additional safeguards have been included in the study to protect the rights and welfare of these subjects.

**Sec. 219.112** Review by institution.

Research covered by this policy that has been approved by an IRB may be subject to further appropriate review and approval or disapproval by officials of the institution. However, those officials may not approve the research if it has not been approved by an IRB.

**Sec. 219.113** Suspension or termination of IRB approval of research.

An IRB shall have authority to suspend or terminate approval of research that is not being conducted in accordance with the IRB's requirements or that has been associated with unexpected serious harm to subjects. Any suspension or termination of approval shall include a statement of the reasons for the IRB's action and shall be reported promptly to the investigator, appropriate institutional officials, and the department or agency head.

(Approved by the Office of Management and Budget under control number 9999-0020)

**Sec. 219.114** Cooperative research.

Cooperative research projects are those projects covered by this policy which involve more than one institution. In the conduct of cooperative research projects, each institution is responsible for safeguarding the rights and welfare of human subjects and for complying with this policy. With the approval of the department or agency head, an institution participating in a cooperative project may enter into a joint review arrangement, rely upon the review of another qualified IRB, or make similar arrangements for avoiding duplication of effort.

**Sec. 219.115** IRB records.

- (a) An institution, or when appropriate an IRB, shall prepare and maintain adequate documentation of IRB activities, including the following:
  - (1) Copies of all research proposals reviewed, scientific evaluations, if any, that accompany the proposals, approved sample consent documents, progress reports submitted by investigators, and reports of injuries to subjects.
  - (2) Minutes of IRB meetings which shall be in sufficient detail to show attendance at the meetings; actions taken by the IRB; the vote on these actions including the number of members voting for, against, and abstaining; the basis for requiring changes in or disapproving research; and a written summary of the discussion of controverted issues and their resolution.
  - (3) Records of continuing review activities.
  - (4) Copies of all correspondence between the IRB and the investigators.
  - (5) A list of IRB members in the same detail as described in Sec. 219.103(b)(3).
  - (6) Written procedures for the IRB in the same detail as described in Sec. 219.103(b)(4) and Sec. 219.103(b)(5).
  - (7) Statements of significant new findings provided to subjects, as required by Sec. 219.116(b)(5).



- (b) The records required by this policy shall be retained for at least 3 years, and records relating to research which is conducted shall be retained for at least 3 years after completion of the research. All records shall be accessible for inspection and copying by authorized representatives of the department or agency at reasonable times and in a reasonable manner.

(Approved by the Office of Management and Budget under control number 9999-0020)

**Sec. 219.116** General requirements for informed consent.

Except as provided elsewhere in this policy, no investigator may involve a human being as a subject in research covered by this policy unless the investigator has obtained the legally effective informed consent of the subject or the subject's legally authorized representative. An investigator shall seek such consent only under circumstances that provide the prospective subject or the representative sufficient opportunity to consider whether or not to participate and that minimize the possibility of coercion or undue influence. The information that is given to the subject or the representative shall be in language understandable to the subject or the representative. No informed consent, whether oral or written, may include any exculpatory language through which the subject or the representative is made to waive or appear to waive any of the subject's legal rights, or releases or appears to release the investigator, the sponsor, the institution or its agents from liability for negligence.

- (a) Basic elements of informed consent. Except as provided in paragraph (c) or (d) of this section, in seeking informed consent the following information shall be provided to each subject:
  - (1) A statement that the study involves research, an explanation of the purposes of the research and the expected duration of the subject's participation, a description of the procedures to be followed, and identification of any procedures which are experimental;
  - (2) A description of any reasonably foreseeable risks or discomforts to the subject;
  - (3) A description of any benefits to the subject or to others which may reasonably be expected from the research;
  - (4) A disclosure of appropriate alternative procedures or courses of treatment, if any, that might be advantageous to the subject;
  - (5) A statement describing the extent, if any, to which confidentiality of records identifying the subject will be maintained;
  - (6) For research involving more than minimal risk, an explanation as to whether any compensation and an explanation as to whether any medical treatments are available if injury occurs and, if so, what they consist of, or where further information may be obtained;
  - (7) An explanation of whom to contact for answers to pertinent questions about the research and research subjects' rights, and whom to contact in the event of a research-related injury to the subject; and
  - (8) A statement that participation is voluntary, refusal to participate will involve no penalty or loss of benefits to which the subject is otherwise entitled, and the subject may discontinue participation at any time without penalty or loss of benefits to which the subject is otherwise entitled.
- (b) Additional elements of informed consent. When appropriate, one or more of the following elements of information shall also be provided to each subject:
  - (1) A statement that the particular treatment or procedure may involve risks to the subject (or to the embryo or fetus, if the subject is or may become pregnant) which are currently unforeseeable;
  - (2) Anticipated circumstances under which the subject's participation may be terminated by the investigator without regard to the subject's consent;
  - (3) Any additional costs to the subject that may result from participation in the research;
  - (4) The consequences of a subject's decision to withdraw from the research and procedures for orderly termination of participation by the subject;
  - (5) A statement that significant new findings developed during the course of the research which may relate to the subject's willingness to continue participation will be provided to the subject; and
  - (6) The approximate number of subjects involved in the study.
- (c) An IRB may approve a consent procedure which does not include, or which alters, some or all of the elements of informed consent set forth above, or waive the requirement to obtain informed consent provided the IRB finds and documents that:
  - (1) The research or demonstration project is to be conducted by or subject to the approval of state or local government officials and is designed to study, evaluate, or otherwise examine:

- (i) Public benefit of service programs;
    - (ii) Procedures for obtaining benefits or services under those programs;
    - (iii) Possible changes in or alternatives to those programs or procedures; or
    - (iv) Possible changes in methods or levels of payment for benefits or services under those programs; and
  - (2) The research could not practicably be carried out without the waiver or alteration.
  - (d) An IRB may approve a consent procedure which does not include, or which alters, some or all of the elements of informed consent set forth in this section, or waive the requirements to obtain informed consent provided the IRB finds and documents that:
    - (1) The research involves no more than minimal risk to the subjects;
    - (2) The waiver or alteration will not adversely affect the rights and welfare of the subjects;
    - (3) The research could not practicably be carried out without the waiver or alteration; and
    - (4) Whenever appropriate, the subjects will be provided with additional pertinent information after participation.
  - (e) The informed consent requirements in this policy are not intended to preempt any applicable federal, state, or local laws which require additional information to be disclosed in order for informed consent to be legally effective.
  - (f) Nothing in this policy is intended to limit the authority of a physician to provide emergency medical care, to the extent the physician is permitted to do so under applicable federal, state, or local law.
- (Approved by the Office of Management and Budget under control number 9999-0020)

**Sec. 219.117** Documentation of informed consent.

- (a) Except as provided in paragraph (c) of this section, informed consent shall be documented by the use of a written consent form approved by the IRB and signed by the subject or the subject's legally authorized representative. A copy shall be given to the person signing the form.
- (b) Except as provided in paragraph (c) of this section, the consent form may be either of the following:
  - (1) A written consent document that embodies the elements of informed consent required by Sec. 219.116. This form may be read to the subject or the subject's legally authorized representative, but in any event, the investigator shall give either the subject or the representative adequate opportunity to read it before it is signed; or
  - (2) A short form written consent document stating that the elements of informed consent required by Sec. 219.116 have been presented orally to the subject or the subject's legally authorized representative. When this method is used, there shall be a witness to the oral presentation. Also, the IRB shall approve a written summary of what is to be said to the subject or the representative. Only the short form itself is to be signed by the subject or the representative. However, the witness shall sign both the short form and a copy of the summary, and the person actually obtaining consent shall sign a copy of the summary. A copy of the summary shall be given to the subject or the representative, in addition to a copy of the short form.
- (c) An IRB may waive the requirement for the investigator to obtain a signed consent form for some or all subjects if it finds either:
  - (1) That the only record linking the subject and the research would be the consent document and the principal risk would be potential harm resulting from a breach of confidentiality. Each subject will be asked whether the subject wants documentation linking the subject with the research, and the subject's wishes will govern; or
  - (2) That the research presents no more than minimal risk of harm to subjects and involves no procedures for which written consent is normally required outside of the research context.

In cases in which the documentation requirement is waived, the IRB may require the investigator to provide subjects with a written statement regarding the research.

(Approved by the Office of Management and Budget under control number 9999-0020)

**Sec. 219.118** Applications and proposals lacking definite plans for involvement of human subjects.

Certain types of applications for grants, cooperative agreements, or contracts are submitted to departments or agencies with the knowledge that subjects may be involved within the period of support, but definite plans would not normally be set forth in the application or proposal. These include activities such as institutional type grants when selection of specific projects is the institution's responsibility; research training grants in which the activities involv-

ing subjects remain to be selected; and projects in which human subjects' involvement will depend upon completion of instruments, prior animal studies, or purification of compounds. These applications need not be reviewed by an IRB before an award may be made. However, except for research exempted or waived under Sec. 219.101 (b) or (i), no human subjects may be involved in any project supported by these awards until the project has been reviewed and approved by the IRB, as provided in this policy, and certification submitted, by the institution, to the department or agency.

**Sec. 219.119** Research undertaken without the intention of involving human subjects.

In the event research is undertaken without the intention of involving human subjects, but it is later proposed to involve human subjects in the research, the research shall first be reviewed and approved by an IRB, as provided in this policy, a certification submitted, by the institution, to the department or agency, and final approval given to the proposed change by the department or agency.

**Sec. 219.120** Evaluation and disposition of applications and proposals for research to be conducted or supported by a Federal Department or Agency.

- (a) The department or agency head will evaluate all applications and proposals involving human subjects submitted to the department or agency through such officers and employees of the department or agency and such experts and consultants as the department or agency head determines to be appropriate. This evaluation will take into consideration the risks to the subjects, the adequacy of protection against these risks, the potential benefits of the research to the subjects and others, and the importance of the knowledge gained or to be gained.
- (b) On the basis of this evaluation, the department or agency head may approve or disapprove the application or proposal, or enter into negotiations to develop an approvable one.

**Sec 219.121** Reserved

**Sec. 219.122** Use of Federal funds.

Federal funds administered by a department or agency may not be expended for research involving human subjects unless the requirements of this policy have been satisfied.

**Sec. 219.123** Early termination of research support: Evaluation of applications and proposals.

- (a) The department or agency head may require that department or agency support for any project be terminated or suspended in the manner prescribed in applicable program requirements, when the department or agency head finds an institution has materially failed to comply with the terms of this policy.
- (b) In making decisions about supporting or approving applications or proposals covered by this policy the department or agency head may take into account, in addition to all other eligibility requirements and program criteria, factors such as whether the applicant has been subject to a termination or suspension under paragraph (a) of this section and whether the applicant or the person or persons who would direct or has have directed the scientific and technical aspects of an activity has have, in the judgment of the department or agency head, materially failed to discharge responsibility for the protection of the rights and welfare of human subjects (whether or not the research was subject to federal regulation).

**Sec. 219.124** Conditions.

With respect to any research project or any class of research projects the department or agency head may impose additional conditions prior to or at the time of approval when in the judgment of the department or agency head additional conditions are necessary for the protection of human subjects.

Endnotes:

1. [56 FR 28012, 28021, June 18, 1991, as amended at 56 FR 29756, June 28, 1991.]
2. Institutions with HHS-approved assurances on file will abide by provisions of title 45 CFR part 46 subparts A-D. Some of the other Departments and Agencies have incorporated all provisions of title 45 CFR part 46 into their policies and procedures as well. However, the exemptions at 45 CFR 46.101(b) do not apply to research involving prisoners, fetuses, pregnant women, or human in vitro fertilization, subparts B and C. The exemption at 45 CFR 46.101(b)(2), for research involving survey or interview procedures or observation of public behavior, does not apply to research with children, subpart D, except for research involving observations of public behavior when the investigator(s) do not participate in the activities being observed.

Available at: <http://www.he.afrl.af.mil/humansubject/32cfr219.html>. Accessed 22 April 2002; formatted to *Textbooks of Military Medicine* style.

## **CHAPTER 19: ATTACHMENT 4**

### **INTERNATIONAL ETHICAL GUIDELINES FOR BIOMEDICAL RESEARCH INVOLVING HUMAN SUBJECTS**

Council for International Organizations of Medical Sciences (CIOMS)

The Council for International Organizations of Medical Sciences (CIOMS) announces the publication of its revised/updated International Ethical Guidelines for Biomedical Research Involving Human Subjects. This 2002 text supersedes the 1993 Guidelines. It is the third in the series of biomedical-research ethical guidelines issued by CIOMS since 1982. Its core consists of 21 guidelines with commentaries. A prefatory section outlines the historical background and the revision process, and includes an introduction, an account of earlier instruments and guidelines, a statement of ethical principles and a preamble. An Appendix lists the items to be included in the research protocol to be submitted for scientific and ethical review and clearance. Appendices include also the World Medical Association's Declaration of Helsinki. The Guidelines relate mainly to ethical justification and scientific validity of research; ethical review; informed consent; vulnerability of individuals, groups, communities and populations; women as research subjects; equity regarding burdens and benefits; choice of control in clinical trials; confidentiality; compensation for injury; strengthening of national or local capacity for ethical review; and obligations of sponsors to provide health-care services. Their scope reflects the changes, the advances and the controversies that have characterized biomedical research ethics in the last two decades. Like those of 1982 and 1993, the 2002 CIOMS Guidelines are designed to be of use to countries in defining national policies on the ethics of biomedical research involving human subjects, applying ethical standards in local circumstances, and establishing or improving ethical review mechanisms. A particular aim is to reflect the conditions and the needs of low-resource countries, and the implications for multinational or transnational research in which they may be partners. [ISBN 92 9036 075 5; Price: Swiss francs 20; Order from CIOMS, c/o WHO, Avenue Appia 20, CH 1211 Geneva 27, Switzerland. E-mail: cioms@who.int; Tel. (+41 22) 791 34 13, Fax: (+41 22) 791 31 11] International Ethical Guidelines for Biomedical Research Involving Human Subjects, Prepared by the Council for International Organizations of Medical Sciences (CIOMS) in collaboration with the World Health Organization (WHO).

CIOMS  
Geneva  
2002

#### **CONTENTS**

##### **ACKNOWLEDGEMENTS**

##### **BACKGROUND**

##### **INTRODUCTION**

##### **INTERNATIONAL INSTRUMENTS AND GUIDELINES**

##### **GENERAL ETHICAL PRINCIPLES**

##### **PREAMBLE**

##### **THE GUIDELINES**

- Guideline 1: Ethical justification and scientific validity of biomedical research involving human subjects**
- Guideline 2: Ethical review committees**
- Guideline 3: Ethical review of externally sponsored research**
- Guideline 4: Individual informed consent**
- Guideline 5: Obtaining informed consent: Essential information for prospective research subjects**
- Guideline 6: Obtaining informed consent: Obligations of sponsors and investigators**
- Guideline 7: Inducement to participate**
- Guideline 8: Benefits and risks of study participation**
- Guideline 9: Special limitations on risk when research involves individuals who are not capable of giving informed consent**
- Guideline 10: Research in populations and communities with limited resources**
- Guideline 11: Choice of control in clinical trials**
- Guideline 12: Equitable distribution of burdens and benefits in the selection of groups of subjects in research**
- Guideline 13: Research involving vulnerable persons**
- Guideline 14: Research involving children**



- Guideline 15:** Research involving individuals who by reason of mental or behavioural disorders are not capable of giving adequately informed consent
  - Guideline 16:** Women as research participants
  - Guideline 17:** Pregnant women as research participants
  - Guideline 18:** Safeguarding confidentiality
  - Guideline 19:** Right of injured subjects to treatment and compensation
  - Guideline 20:** Strengthening capacity for ethical and scientific review and biomedical research
  - Guideline 21:** Ethical obligation of external sponsors to provide health-care services
- Appendix 1: Items to be included in a protocol (or associated documents) for biomedical research involving human subjects.
- Appendix 2: The Declaration of Helsinki
- Appendix 3: The phases of clinical trials of vaccines and drugs

## ACKNOWLEDGEMENTS

The Council for International Organizations of Medical Sciences (CIOMS) acknowledges the substantial financial contribution of the Joint United Nations Programme on HIV / AIDS (UNAIDS) to the preparation of the 2002 International Ethical Guidelines for Biomedical Research Involving Human Subjects. The World Health Organization in Geneva contributed generously also through the departments of Reproductive Health and Research, Essential Drugs and Medicines Policy, Vaccines and Biologicals, and HIV / AIDS / Sexually Transmitted Infections, as well as the Special Programme for Research and Training in Tropical Diseases. CIOMS was at all times free to avail of the services and facilities of WHO. CIOMS acknowledges also with much appreciation the financial support to the project from the Government of Finland, the Government of Switzerland, the Swiss Academy of Medical Sciences, the Fogarty International Center at the National Institutes of Health, USA, and the Medical Research Council of the United Kingdom. A number of institutions and organizations made valuable contributions by making their experts available at no cost to CIOMS for the three meetings held in relation to the revision project. This has been highly appreciated. The task of finalizing the various drafts was in the hands of Professor Robert J. Levine, who served as consultant to the project and chair of the steering committee, and whose profound knowledge and understanding of the field is remarkable. He was ably assisted by Dr James Gallagher of the CIOMS secretariat, who managed the electronic discussion and endeavoured to accommodate or reflect in the text the numerous comments received. He also edited the final text. Special mention must be made of the informal drafting group set up to bring the influence of various cultures to bear on the process. The group, with two members of the CIOMS secretariat, met for five days in New York in January 2001 and continued for several months to interact electronically with one another and with the secretariat to prepare the third draft, posted on the CIOMS website in June 2001: Fernando Lolas Stepke (chair), John Bryant, Leonardo de Castro, Robert Levine, Ruth Macklin, and Godfrey Tangwa; the group continued from October 2001, together with Florencia Luna and Rodolfo Saracci, to cooperate in preparing the fourth draft. The contribution of this group was invaluable. The interest and comments of the many organizations and individuals who responded to the several drafts of the guidelines posted on the CIOMS website or otherwise made available are gratefully acknowledged (Appendix 6) At CIOMS, Sev Fluss was at all times ready and resourceful when consulted, with advice and constructive comment, and Mrs Kathryn Chalaby-Amsler responded most competently to the sometimes considerable demands made on her administrative and secretarial skills.

## BACKGROUND

The Council for International Organizations of Medical Sciences (CIOMS) is an international nongovernmental organization in official relations with the World Health Organization (WHO). It was founded under the auspices of WHO and the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 1949 with among its mandates that of maintaining collaborative relations with the United Nations and its specialized agencies, particularly with UNESCO and WHO.

CIOMS, in association with WHO, undertook its work on ethics in relation to biomedical research in the late 1970s. At that time, newly independent WHO Member States were setting up health-care systems. WHO was not then in a position to promote ethics as an aspect of health care or research. It was thus that CIOMS set out, in cooperation with WHO, to prepare guidelines "to indicate how the ethical principles that should guide the conduct of biomedical research involving human subjects, as set forth in the Declaration of Helsinki, could be effectively applied, particularly in developing countries, given their socioeconomic circumstances, laws and regulations, and executive and administrative arrangements." The World Medical Association had issued the original Declaration of Helsinki in 1964 and an amended version in 1975. The outcome of the CIOMS/WHO undertaking was, in 1982, Proposed International Ethical Guidelines for Biomedical Research Involving Human Subjects.

The period that followed saw the outbreak of the HIV / AIDS pandemic and proposals to undertake large-scale trials of vaccine and treatment drugs for the condition. These raised new ethical issues that had not been considered

in the preparation of Proposed Guidelines. There were other factors also—rapid advances in medicine and biotechnology, changing research practices such as multinational field trials, experimentation involving vulnerable population groups, and also a changing view, in rich and poor countries, that research involving human subjects was largely beneficial and not threatening. The Declaration of Helsinki was revised twice in the 1980s—in 1983 and 1989. It was timely to revise and update the 1982 guidelines, and CIOMS, with the cooperation of WHO and its Global Programme on AIDS, undertook the task. The outcome was the issuing of two sets of guidelines: in 1991, International Guidelines for Ethical Review of Epidemiological Studies; and, in 1993, International Ethical Guidelines for Biomedical Research Involving Human Subjects.

After 1993, ethical issues arose for which the CIOMS Guidelines had no specific provision. They related mainly to controlled clinical trials, with external sponsors and investigators, carried out in low-resource countries and to the use of comparators other than an established effective intervention. The issue in question was the perceived need in those countries for low-cost, technologically appropriate, public-health solutions, and in particular for HIV/AIDS treatment drugs or vaccines that poorer countries could afford. Commentators took opposing sides on this issue. One advocated, for low-resource countries, trials of interventions that, while they might be less effective than the treatment available in the better-off countries, would be less expensive. All research efforts for public solutions appropriate to developing countries should not be rejected as unethical, they claimed. The research context should be considered. Local decision-making should be the norm. Paternalism on the part of the richer countries towards poorer countries should be avoided. The challenge was to encourage research for local solutions to the burden of disease in much of the world, while providing clear guidance on protecting against exploitation of vulnerable communities and individuals.

The other side argued that such trials constituted, or risked constituting, exploitation of poor countries by rich countries and were inherently unethical. Economic factors should not influence ethical considerations. It was within the capacity of rich countries or the pharmaceutical industry to make established effective treatment available for comparator purposes. Certain low-resource countries had already made available from their own resources established effective treatment for their HIV/AIDS patients.

This conflict complicated the revision and updating of the 1993 Guidelines. Ultimately, it became clear that the conflicting views could not be reconciled, though the proponents of the former view claimed that the new guidelines had built in effective safeguards against exploitation. The commentary to the Guideline concerned (11) recognizes the unresolved, or unresolvable, conflict.

The revision/updating of the 1993 Guidelines began in December 1998, and a first draft prepared by the CIOMS consultant for the project was reviewed by the project steering committee, which met in May 1999. The committee proposed amendments and listed topics on which new or revised guidelines were indicated; it recommended papers to be commissioned on the topics, as well as authors and commentators, for presentation and discussion at a CIOMS interim consultation. It was considered that an interim consultation meeting, of members of the steering committee together with the authors of commissioned papers and designated commentators, followed by further redrafting and electronic distribution and feedback, would better serve the purpose of the project than the process originally envisaged, which had been to complete the revision in one further step. The consultation was accordingly organized for March 2000, in Geneva.

At the consultation, progress on the revision was reported and contentious matters reviewed. Eight commissioned papers previously distributed were presented, commented upon, and discussed. The work of the consultation continued with ad hoc electronic working groups over the following several weeks, and the outcome was made available for the preparation of the third draft. The material commissioned for the consultation was made the subject of a CIOMS publication: *Biomedical Research Ethics: Updating International Guidelines. A Consultation* (December 2000).

An informal redrafting group of eight, from Africa, Asia, Latin America, the United States and the CIOMS secretariat met in New York City in January 2001, and subsequently interacted electronically with one another and with the CIOMS secretariat. A revised draft was posted on the CIOMS website in June 2001 and otherwise widely distributed. Many organizations and individuals commented, some extensively, some critically. Views on certain positions, notably on placebo-controlled trials, were contradictory. For the subsequent revision two members were added to the redrafting group, from Europe and Latin America. The consequent draft was posted on the website in January 2002 in preparation for the CIOMS Conference in February/March 2002.

The CIOMS Conference was convened to discuss and, as far as possible, endorse a final draft to be submitted for final approval to the CIOMS Executive Committee. Besides representation of member organizations of CIOMS, participants included experts in ethics and research from all continents. They reviewed the draft guidelines seriatim and suggested modifications. Guideline 11, Choice of control in clinical trials, was redrafted at the conference in an effort to reduce disagreement. The redrafted text of that guideline was intensively discussed and generally well received. Some participants, however, continued to question the ethical acceptability of the exception to the general rule limiting the use of placebo to the conditions set out in the guideline; they argued that research subjects should not be exposed to risk of serious or irreversible harm when an established effective intervention could prevent such harm, and that such exposure could constitute exploitation. Ultimately, the commentary of Guideline 11 reflects the oppos-

ing positions on use of a comparator other than an established effective intervention for control purposes.

The new text, the 2002 text, which supersedes that of 1993, consists of a statement of general ethical principles, a preamble and 21 guidelines, with an introduction and a brief account of earlier declarations and guidelines. Like the 1982 and 1993 Guidelines, the present publication is designed to be of use, particularly to low-resource countries, in defining national policies on the ethics of biomedical research, applying ethical standards in local circumstances, and establishing or redefining adequate mechanisms for ethical review of research involving human subjects

Comments on the Guidelines are welcome and should be addressed to the Secretary-General, Council for International Organizations of Medical Sciences, c/o World Health Organization, CH-1211 Geneva 27, Switzerland; or by e-mail to [cioms@who.int](mailto:cioms@who.int).

## INTRODUCTION

This is the third in the series of international ethical guidelines for biomedical research involving human subjects issued by the Council for International Organizations of Medical Sciences since 1982. Its scope and preparation reflect well the transformation that has occurred in the field of research ethics in the almost quarter century since CIOMS first undertook to make this contribution to medical sciences and the ethics of research. The CIOMS Guidelines, with their stated concern for the application of the Declaration of Helsinki in developing countries, necessarily reflect the conditions and the needs of biomedical research in those countries, and the implications for multinational or transnational research in which they may be partners.

An issue, mainly for those countries and perhaps less pertinent now than in the past, has been the extent to which ethical principles are considered universal or as culturally relative—the universalist versus the pluralist view. The challenge to international research ethics is to apply universal ethical principles to biomedical research in a multicultural world with a multiplicity of health-care systems and considerable variation in standards of health care. The Guidelines take the position that research involving human subjects must not violate any universally applicable ethical standards, but acknowledge that, in superficial aspects, the application of the ethical principles, e.g., in relation to individual autonomy and informed consent, needs to take account of cultural values, while respecting absolutely the ethical standards.

Related to this issue is that of the human rights of research subjects, as well as of health professionals as researchers in a variety of sociocultural contexts, and the contribution that international human rights instruments can make in the application of the general principles of ethics to research involving human subjects. The issue concerns largely, though not exclusively, two principles: respect for autonomy and protection of dependent or vulnerable persons and populations. In the preparation of the Guidelines the potential contribution in these respects of human rights instruments and norms was discussed, and the Guideline drafters have represented the views of commentators on safeguarding the corresponding rights of subjects.

Certain areas of research are not represented by specific guidelines. One such is human genetics. It is, however, considered in Guideline 18 Commentary under Issues of confidentiality in genetics research. The ethics of genetics research was the subject of a commissioned paper and commentary.

Another unrepresented area is research with products of conception (embryo and fetal research, and fetal tissue research). An attempt to craft a guideline on the topic proved unfeasible. At issue was the moral status of embryos and fetuses and the degree to which risks to the life or well-being of these entities are ethically permissible.

In relation to the use of comparators in controls, commentators have raised the the question of standard of care to be provided to a control group. They emphasize that standard of care refers to more than the comparator drug or other intervention, and that research subjects in the poorer countries do not usually enjoy the same standard of all-round care enjoyed by subjects in richer countries. This issue is not addressed specifically in the Guidelines.

In one respect the Guidelines depart from the terminology of the Declaration of Helsinki. 'Best current intervention' is the term most commonly used to describe the active comparator that is ethically preferred in controlled clinical trials. For many indications, however, there is more than one established 'current' intervention and expert clinicians do not agree on which is superior. In other circumstances in which there are several established 'current' interventions, some expert clinicians recognize one as superior to the rest; some commonly prescribe another because the superior intervention may be locally unavailable, for example, or prohibitively expensive or unsuited to the capability of particular patients to adhere to a complex and rigorous regimen. 'Established effective intervention' is the term used in Guideline 11 to refer to all such interventions, including the best and the various alternatives to the best. In some cases an ethical review committee may determine that it is ethically acceptable to use an established effective intervention as a comparator, even in cases where such an intervention is not considered the best current intervention.

The mere formulation of ethical guidelines for biomedical research involving human subjects will hardly resolve all the moral doubts that can arise in association with much research, but the Guidelines can at least draw the attention of sponsors, investigators and ethical review committees to the need to consider carefully the ethical implications of research protocols and the conduct of research, and thus conduce to high scientific and ethical standards of biomedical research.

## INTERNATIONAL INSTRUMENTS AND GUIDELINES

The first international instrument on the ethics of medical research, the Nuremberg Code, was promulgated in 1947 as a consequence of the trial of physicians (the Doctors' Trial) who had conducted atrocious experiments on unconsenting prisoners and detainees during the second world war. The Code, designed to protect the integrity of the research subject, set out conditions for the ethical conduct of research involving human subjects, emphasizing their voluntary consent to research.

The Universal Declaration of Human Rights was adopted by the General Assembly of the United Nations in 1948. To give the Declaration legal as well as moral force, the General Assembly adopted in 1966 the International Covenant on Civil and Political Rights. Article 7 of the Covenant states "No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment. In particular, no one shall be subjected without his free consent to medical or scientific experimentation". It is through this statement that society expresses the fundamental human value that is held to govern all research involving human subjects—the protection of the rights and welfare of all human subjects of scientific experimentation.

The Declaration of Helsinki, issued by the World Medical Association in 1964, is the fundamental document in the field of ethics in biomedical research and has influenced the formulation of international, regional and national legislation and codes of conduct. The Declaration, amended several times, most recently in 2000 (Appendix 2), is a comprehensive international statement of the ethics of research involving human subjects. It sets out ethical guidelines for physicians engaged in both clinical and nonclinical biomedical research.

Since the publication of the CIOMS 1993 Guidelines, several international organizations have issued ethical guidance on clinical trials. This has included, from the World Health Organization, in 1995, Guidelines for Good Clinical Practice for Trials on Pharmaceutical Products; and from the International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH), in 1996, Guideline on Good Clinical Practice, designed to ensure that data generated from clinical trials are mutually acceptable to regulatory authorities in the European Union, Japan and the United States of America. The Joint United Nations Programme on HIV / AIDS published in 2000 the UNAIDS Guidance Document Ethical Considerations in HIV Preventive Vaccine Research.

In 2001 the Council of Ministers of the European Union adopted a Directive on clinical trials, which will be binding in law in the countries of the Union from 2004. The Council of Europe, with more than 40 member States, is developing a Protocol on Biomedical Research, which will be an additional protocol to the Council's 1997 Convention on Human Rights and Biomedicine.

Not specifically concerned with biomedical research involving human subjects but clearly pertinent, as noted above, are international human rights instruments. These are mainly the Universal Declaration of Human Rights, which, particularly in its science provisions, was highly influenced by the Nuremberg Code; the International Covenant on Civil and Political Rights; and the International Covenant on Economic, Social and Cultural Rights. Since the Nuremberg experience, human rights law has expanded to include the protection of women (Convention on the Elimination of All Forms of Discrimination Against Women) and children (Convention on the Rights of the Child). These and other such international instruments endorse in terms of human rights the general ethical principles that underlie the CIOMS International Ethical Guidelines.

## GENERAL ETHICAL PRINCIPLES

All research involving human subjects should be conducted in accordance with three basic ethical principles, namely respect for persons, beneficence and justice. It is generally agreed that these principles, which in the abstract have equal moral force, guide the conscientious preparation of proposals for scientific studies. In varying circumstances they may be expressed differently and given different moral weight, and their application may lead to different decisions or courses of action. The present guidelines are directed at the application of these principles to research involving human subjects.

Respect for persons incorporates at least two fundamental ethical considerations, namely:

- (a) respect for autonomy, which requires that those who are capable of deliberation about their personal choices should be treated with respect for their capacity for self-determination; and
- (b) protection of persons with impaired or diminished autonomy, which requires that those who are dependent or vulnerable be afforded security against harm or abuse.

Beneficence refers to the ethical obligation to maximize benefits and to minimize harms. This principle gives rise to norms requiring that the risks of research be reasonable in the light of the expected benefits, that the research design be sound, and that the investigators be competent both to conduct the research and to safeguard the welfare of the research subjects. Beneficence further proscribes the deliberate infliction of harm on persons; this aspect of beneficence is sometimes expressed as a separate principle, nonmaleficence (do no harm).



Justice refers to the ethical obligation to treat each person in accordance with what is morally right and proper, to give each person what is due to him or her. In the ethics of research involving human subjects the principle refers primarily to distributive justice, which requires the equitable distribution of both the burdens and the benefits of participation in research. Differences in distribution of burdens and benefits are justifiable only if they are based on morally relevant distinctions between persons; one such distinction is vulnerability. "Vulnerability" refers to a substantial incapacity to protect one's own interests owing to such impediments as lack of capability to give informed consent, lack of alternative means of obtaining medical care or other expensive necessities, or being a junior or subordinate member of a hierarchical group. Accordingly, special provision must be made for the protection of the rights and welfare of vulnerable persons.

Sponsors of research or investigators cannot, in general, be held accountable for unjust conditions where the research is conducted, but they must refrain from practices that are likely to worsen unjust conditions or contribute to new inequities. Neither should they take advantage of the relative inability of low-resource countries or vulnerable populations to protect their own interests, by conducting research inexpensively and avoiding complex regulatory systems of industrialized countries in order to develop products for the lucrative markets of those countries.

In general, the research project should leave low-resource countries or communities better off than previously or, at least, no worse off. It should be responsive to their health needs and priorities in that any product developed is made reasonably available to them, and as far as possible leave the population in a better position to obtain effective health care and protect its own health.

Justice requires also that the research be responsive to the health conditions or needs of vulnerable subjects. The subjects selected should be the least vulnerable necessary to accomplish the purposes of the research. Risk to vulnerable subjects is most easily justified when it arises from interventions or procedures that hold out for them the prospect of direct health-related benefit. Risk that does not hold out such prospect must be justified by the anticipated benefit to the population of which the individual research subject is representative.

## **PREAMBLE**

The term "research" refers to a class of activity designed to develop or contribute to generalizable knowledge. Generalizable knowledge consists of theories, principles or relationships, or the accumulation of information on which they are based, that can be corroborated by accepted scientific methods of observation and inference. In the present context "research" includes both medical and behavioural studies pertaining to human health. Usually "research" is modified by the adjective "biomedical" to indicate its relation to health.

Progress in medical care and disease prevention depends upon an understanding of physiological and pathological processes or epidemiological findings, and requires at some time research involving human subjects. The collection, analysis and interpretation of information obtained from research involving human beings contribute significantly to the improvement of human health.

Research involving human subjects includes:

- studies of a physiological, biochemical or pathological process, or of the response to a specific intervention—whether physical, chemical or psychological—in healthy subjects or patients;
- controlled trials of diagnostic, preventive or therapeutic measures in larger groups of persons, designed to demonstrate a specific generalizable response to these measures against a background of individual biological variation;
- studies designed to determine the consequences for individuals and communities of specific preventive or therapeutic measures; and
- studies concerning human health-related behaviour in a variety of circumstances and environments.

Research involving human subjects may employ either observation or physical, chemical or psychological intervention; it may also either generate records or make use of existing records containing biomedical or other information about individuals who may or may not be identifiable from the records or information. The use of such records and the protection of the confidentiality of data obtained from those records are discussed in International Guidelines for Ethical Review of Epidemiological Studies (CIOMS, 1991).

The research may be concerned with the social environment, manipulating environmental factors in a way that could affect incidentally-exposed individuals. It is defined in broad terms in order to embrace field studies of pathogenic organisms and toxic chemicals under investigation for health-related purposes.

Biomedical research with human subjects is to be distinguished from the practice of medicine, public health and other forms of health care, which is designed to contribute directly to the health of individuals or communities. Prospective subjects may find it confusing when research and practice are to be conducted simultaneously, as when research is designed to obtain new information about the efficacy of a drug or other therapeutic, diagnostic or preventive modality.

As stated in Paragraph 32 of the Declaration of Helsinki, "In the treatment of a patient, where proven prophylactic, diagnostic and therapeutic methods do not exist or have been ineffective, the physician, with informed consent from the patient, must be free to use unproven or new prophylactic, diagnostic and therapeutic measures, if in the physician's judgement it offers hope of saving life, re-establishing health or alleviating suffering. Where possible, these measures should be made the object of research, designed to evaluate their safety and efficacy. In all cases, new information should be recorded and, where appropriate, published. The other relevant guidelines of this Declaration should be followed."

Professionals whose roles combine investigation and treatment have a special obligation to protect the rights and welfare of the patient-subjects. An investigator who agrees to act as physician-investigator undertakes some or all of the legal and ethical responsibilities of the subject's primary-care physician. In such a case, if the subject withdraws from the research owing to complications related to the research or in the exercise of the right to withdraw without loss of benefit, the physician has an obligation to continue to provide medical care, or to see that the subject receives the necessary care in the health-care system, or to offer assistance in finding another physician.

Research with human subjects should be carried out only by, or strictly supervised by, suitably qualified and experienced investigators and in accordance with a protocol that clearly states: the aim of the research; the reasons for proposing that it involve human subjects; the nature and degree of any known risks to the subjects; the sources from which it is proposed to recruit subjects; and the means proposed for ensuring that subjects' consent will be adequately informed and voluntary. The protocol should be scientifically and ethically appraised by one or more suitably constituted review bodies, independent of the investigators.

New vaccines and medicinal drugs, before being approved for general use, must be tested on human subjects in clinical trials; such trials constitute a substantial part of all research involving human subjects.

## THE GUIDELINES

### **Guideline 1: Ethical justification and scientific validity of biomedical research involving human beings**

The ethical justification of biomedical research involving human subjects is the prospect of discovering new ways of benefiting people's health. Such research can be ethically justifiable only if it is carried out in ways that respect and protect, and are fair to, the subjects of that research and are morally acceptable within the communities in which the research is carried out. Moreover, because scientifically invalid research is unethical in that it exposes research subjects to risks without possible benefit, investigators and sponsors must ensure that proposed studies involving human subjects conform to generally accepted scientific principles and are based on adequate knowledge of the pertinent scientific literature.

**Commentary on Guideline 1:** Among the essential features of ethically justified research involving human subjects, including research with identifiable human tissue or data, are that the research offers a means of developing information not otherwise obtainable, that the design of the research is scientifically sound, and that the investigators and other research personnel are competent. The methods to be used should be appropriate to the objectives of the research and the field of study. Investigators and sponsors must also ensure that all who participate in the conduct of the research are qualified by virtue of their education and experience to perform competently in their roles. These considerations should be adequately reflected in the research protocol submitted for review and clearance to scientific and ethical review committees (Appendix I). Scientific review is discussed further in the Commentaries to Guidelines 2 and 3: Ethical review committees and Ethical review of externally sponsored research. Other ethical aspects of research are discussed in the remaining guidelines and their commentaries. The protocol designed for submission for review and clearance to scientific and ethical review committees should include, when relevant, the items specified in Appendix I, and should be carefully followed in conducting the research.

### **Guideline 2: Ethical review committees**

All proposals to conduct research involving human subjects must be submitted for review of their scientific merit and ethical acceptability to one or more scientific review and ethical review committees. The review committees must be independent of the research team, and any direct financial or other material benefit they may derive from the research should not be contingent on the outcome of their review. The investigator must obtain their approval or clearance before undertaking the research. The ethical review committee should conduct further reviews as necessary in the course of the research, including monitoring of the progress of the study.

**Commentary on Guideline 2:** Ethical review committees may function at the institutional, local, regional, or national level, and in some cases at the international level. The regulatory or other governmental authorities concerned should promote uniform standards across committees within a country, and, under all systems, sponsors of research and institutions in which the investigators are employed should allocate sufficient resources to the review process. Ethical review committees may receive money for the activity of reviewing protocols, but under no circumstances may payment be offered or accepted for a review committee's approval or clearance of a protocol.

**Scientific review.** According to the Declaration of Helsinki (Paragraph 11), medical research involving humans must conform to generally accepted scientific principles, and be based on a thorough knowledge of the scientific literature, other relevant sources of information, and adequate laboratory and, where indicated, animal experimental-

tion. Scientific review must consider, *inter alia*, the study design, including the provisions for avoiding or minimizing risk and for monitoring safety. Committees competent to review and approve scientific aspects of research proposals must be multidisciplinary.

**Ethical review.** The ethical review committee is responsible for safeguarding the rights, safety, and well-being of the research subjects. Scientific review and ethical review cannot be separated: scientifically unsound research involving humans as subjects is *ipso facto* unethical in that it may expose them to risk or inconvenience to no purpose; even if there is no risk of injury, wasting of subjects' and researchers' time in unproductive activities represents loss of a valuable resource. Normally, therefore, an ethical review committee considers both the scientific and the ethical aspects of proposed research. It must either carry out a proper scientific review or verify that a competent expert body has determined that the research is scientifically sound. Also, it considers provisions for monitoring of data and safety. If the ethical review committee finds a research proposal scientifically sound, or verifies that a competent expert body has found it so, it should then consider whether any known or possible risks to the subjects are justified by the expected benefits, direct or indirect, and whether the proposed research methods will minimize harm and maximize benefit. (See Guideline 8: Benefits and risks of study participation.) If the proposal is sound and the balance of risks to anticipated benefits is reasonable, the committee should then determine whether the procedures proposed for obtaining informed consent are satisfactory and those proposed for the selection of subjects are equitable.

**Ethical review of emergency compassionate use of an investigational therapy.** In some countries, drug regulatory authorities require that the so-called compassionate or humanitarian use of an investigational treatment be reviewed by an ethical review committee as though it were research. Exceptionally, a physician may undertake the compassionate use of an investigational therapy before obtaining the approval or clearance of an ethical review committee, provided three criteria are met: a patient needs emergency treatment, there is some evidence of possible effectiveness of the investigational treatment, and there is no other treatment available that is known to be equally effective or superior. Informed consent should be obtained according to the legal requirements and cultural standards of the community in which the intervention is carried out. Within one week the physician must report to the ethical review committee the details of the case and the action taken, and an independent health-care professional must confirm in writing to the ethical review committee the treating physician's judgment that the use of the investigational intervention was justified according to the three specified criteria. (See also Guideline 13 Commentary section: Other vulnerable groups.)

**National (centralized) or local review.** Ethical review committees may be created under the aegis of national or local health administrations, national (or centralized) medical research councils or other nationally representative bodies. In a highly centralized administration a national, or centralized, review committee may be constituted for both the scientific and the ethical review of research protocols. In countries where medical research is not centrally administered, ethical review is more effectively and conveniently undertaken at a local or regional level. The authority of a local ethical review committee may be confined to a single institution or may extend to all institutions in which biomedical research is carried out within a defined geographical area. The basic responsibilities of ethical review committees are:

- to determine that all proposed interventions, particularly the administration of drugs and vaccines or the use of medical devices or procedures under development, are acceptably safe to be undertaken in humans or to verify that another competent expert body has done so;
- to determine that the proposed research is scientifically sound or to verify that another competent expert body has done so;
- to ensure that all other ethical concerns arising from a protocol are satisfactorily resolved both in principle and in practice;
- to consider the qualifications of the investigators, including education in the principles of research practice, and the conditions of the research site with a view to ensuring the safe conduct of the trial; and
- to keep records of decisions and to take measures to follow up on the conduct of ongoing research projects.

**Committee membership.** National or local ethical review committees should be so composed as to be able to provide complete and adequate review of the research proposals submitted to them. It is generally presumed that their membership should include physicians, scientists and other professionals such as nurses, lawyers, ethicists and clergy, as well as lay persons qualified to represent the cultural and moral values of the community and to ensure that the rights of the research subjects will be respected. They should include both men and women. When uneducated or illiterate persons form the focus of a study they should also be considered for membership or invited to be represented and have their views expressed. A number of members should be replaced periodically with the aim of blending the advantages of experience with those of fresh perspectives. A national or local ethical review committee responsible for reviewing and approving proposals for externally sponsored research should have among its members or consultants persons who are thoroughly familiar with the customs and traditions of the population or community concerned and sensitive to issues of human dignity. Committees that often review research proposals directed at specific diseases or impairments, such as HIV / AIDS or paraplegia, should invite or hear the views of individuals or

bodies representing patients with such diseases or impairments. Similarly, for research involving such subjects as children, students, elderly persons or employees, committees should invite or hear the views of their representatives or advocates. To maintain the review committee's independence from the investigators and sponsors and to avoid conflict of interest, any member with a special or particular, direct or indirect, interest in a proposal should not take part in its assessment if that interest could subvert the member's objective judgment. Members of ethical review committees should be held to the same standard of disclosure as scientific and medical research staff with regard to financial or other interests that could be construed as conflicts of interest. A practical way of avoiding such conflict of interest is for the committee to insist on a declaration of possible conflict of interest by any of its members. A member who makes such a declaration should then withdraw, if to do so is clearly the appropriate action to take, either at the member's own discretion or at the request of the other members. Before withdrawing, the member should be permitted to offer comments on the protocol or to respond to questions of other members.

**Multi-centre research.** Some research projects are designed to be conducted in a number of centres in different communities or countries. Generally, to ensure that the results will be valid, the study must be conducted in an identical way at each centre. Such studies include clinical trials, research designed for the evaluation of health service programmes, and various kinds of epidemiological research. For such studies, local ethical or scientific review committees are not normally authorized to change doses of drugs, to change inclusion or exclusion criteria, or to make other similar modifications. They should be fully empowered to prevent a study that they believe to be unethical. Moreover, changes that local review committees believe are necessary to protect the research subjects should be documented and reported to the research institution or sponsor responsible for the whole research programme for consideration and due action, to ensure that all other subjects can be protected and that the research will be valid across sites. To ensure the validity of multi-centre research, any change in the protocol should be made at every collaborating centre or institution, or, failing this, explicit inter-centre comparability procedures must be introduced; changes made at some but not all will defeat the purpose of multi-centre research. For some multi-centre studies, scientific and ethical review may be facilitated by agreement among centres to accept the conclusions of a single review committee; its members could include a representative of the ethical review committee at each of the centres at which the research is to be conducted, as well as individuals competent to conduct scientific review. In other circumstances, a centralized review may be complemented by local review relating to the local participating investigators and institutions. The central committee could review the study from a scientific and ethical standpoint, and the local committees could verify the practicability of the study in their communities, including the infrastructures, the state of training, and ethical considerations of local significance. In a large multi-centre trial, individual investigators will not have authority to act independently, with regard to data analysis or to preparation and publication of manuscripts, for instance. Such a trial usually has a set of committees which operate under the direction of a steering committee and are responsible for such functions and decisions. The function of the ethical review committee in such cases is to review the relevant plans with the aim of avoiding abuses.

**Sanctions.** Ethical review committees generally have no authority to impose sanctions on researchers who violate ethical standards in the conduct of research involving humans. They may, however, withdraw ethical approval of a research project if judged necessary. They should be required to monitor the implementation of an approved protocol and its progression, and to report to institutional or governmental authorities any serious or continuing non-compliance with ethical standards as they are reflected in protocols that they have approved or in the conduct of the studies. Failure to submit a protocol to the committee should be considered a clear and serious violation of ethical standards. Sanctions imposed by governmental, institutional, professional or other authorities possessing disciplinary power should be employed as a last resort. Preferred methods of control include cultivation of an atmosphere of mutual trust, and education and support to promote in researchers and in sponsors the capacity for ethical conduct of research. Should sanctions become necessary, they should be directed at the non-compliant researchers or sponsors. They may include fines or suspension of eligibility to receive research funding, to use investigational interventions, or to practise medicine. Unless there are persuasive reasons to do otherwise, editors should refuse to publish the results of research conducted unethically, and retract any articles that are subsequently found to contain falsified or fabricated data or to have been based on unethical research. Drug regulatory authorities should consider refusal to accept unethically obtained data submitted in support of an application for authorization to market a product. Such sanctions, however, may deprive of benefit not only the errant researcher or sponsor but also that segment of society intended to benefit from the research; such possible consequences merit careful consideration.

**Potential conflicts of interest related to project support.** Increasingly, biomedical studies receive funding from commercial firms. Such sponsors have good reasons to support research methods that are ethically and scientifically acceptable, but cases have arisen in which the conditions of funding could have introduced bias. It may happen that investigators have little or no input into trial design, limited access to the raw data, or limited participation in data interpretation, or that the results of a clinical trial may not be published if they are unfavourable to the sponsor's product. This risk of bias may also be associated with other sources of support, such as government or foundations. As the persons directly responsible for their work, investigators should not enter into agreements that interfere unduly with their access to the data or their ability to analyse the data independently, to prepare manuscripts, or to publish them. Investigators must also disclose potential or apparent conflicts of interest on their part to the ethical



review committee or to other institutional committees designed to evaluate and manage such conflicts. Ethical review committees should therefore ensure that these conditions are met. See also Multi-centre research, above.

**Guideline 3: Ethical review of externally sponsored research**

An external sponsoring organization and individual investigators should submit the research protocol for ethical and scientific review in the country of the sponsoring organization, and the ethical standards applied should be no less stringent than they would be for research carried out in that country. The health authorities of the host country, as well as a national or local ethical review committee, should ensure that the proposed research is responsive to the health needs and priorities of the host country and meets the requisite ethical standards.

**Commentary on Guideline 3:**

**Definition.** The term externally sponsored research refers to research undertaken in a host country but sponsored, financed, and sometimes wholly or partly carried out by an external international or national organization or pharmaceutical company with the collaboration or agreement of the appropriate authorities, institutions and personnel of the host country.

**Ethical and scientific review.** Committees in both the country of the sponsor and the host country have responsibility for conducting both scientific and ethical review, as well as the authority to withhold approval of research proposals that fail to meet their scientific or ethical standards. As far as possible, there must be assurance that the review is independent and that there is no conflict of interest that might affect the judgement of members of the review committees in relation to any aspect of the research. When the external sponsor is an international organization, its review of the research protocol must be in accordance with its own independent ethical-review procedures and standards. Committees in the external sponsoring country or international organization have a special responsibility to determine whether the scientific methods are sound and suitable to the aims of the research; whether the drugs, vaccines, devices or procedures to be studied meet adequate standards of safety; whether there is sound justification for conducting the research in the host country rather than in the country of the external sponsor or in another country; and whether the proposed research is in compliance with the ethical standards of the external sponsoring country or international organization. Committees in the host country have a special responsibility to determine whether the objectives of the research are responsive to the health needs and priorities of that country. The ability to judge the ethical acceptability of various aspects of a research proposal requires a thorough understanding of a community's customs and traditions. The ethical review committee in the host country, therefore, must have as either members or consultants persons with such understanding; it will then be in a favourable position to determine the acceptability of the proposed means of obtaining informed consent and otherwise respecting the rights of prospective subjects as well as of the means proposed to protect the welfare of the research subjects. Such persons should be able, for example, to indicate suitable members of the community to serve as intermediaries between investigators and subjects, and to advise on whether material benefits or inducements may be regarded as appropriate in the light of a community's gift-exchange and other customs and traditions. When a sponsor or investigator in one country proposes to carry out research in another, the ethical review committees in the two countries may, by agreement, undertake to review different aspects of the research protocol. In short, in respect of host countries either with developed capacity for independent ethical review or in which external sponsors and investigators are contributing substantially to such capacity, ethical review in the external, sponsoring country may be limited to ensuring compliance with broadly stated ethical standards. The ethical review committee in the host country can be expected to have greater competence for reviewing the detailed plans for compliance, in view of its better understanding of the cultural and moral values of the population in which it is proposed to conduct the research; it is also likely to be in a better position to monitor compliance in the course of a study. However, in respect of research in host countries with inadequate capacity for independent ethical review, full review by the ethical review committee in the external sponsoring country or international agency is necessary.

**Guideline 4: Individual informed consent**

For all biomedical research involving humans the investigator must obtain the voluntary informed consent of the prospective subject or, in the case of an individual who is not capable of giving informed consent, the permission of a legally authorized representative in accordance with applicable law. Waiver of informed consent is to be regarded as uncommon and exceptional, and must in all cases be approved by an ethical review committee.

**Commentary on Guideline 4:**

**General considerations.** Informed consent is a decision to participate in research, taken by a competent individual who has received the necessary information; who has adequately understood the information; and who, after considering the information, has arrived at a decision without having been subjected to coercion, undue influence or inducement, or intimidation. Informed consent is based on the principle that competent individuals are entitled to choose freely whether to participate in research. Informed consent protects the individual's freedom of choice and respects the individual's autonomy. As an additional safeguard, it must always be complemented by independent ethical review of research proposals. This safeguard of independent review is particularly important as many individuals are limited in their capacity to give adequate informed consent; they include young children, adults with severe mental or behavioural disorders, and persons who are unfamiliar with medical concepts and technology (See Guidelines 13, 14, 15).

**Process.** Obtaining informed consent is a process that is begun when initial contact is made with a prospective subject and continues throughout the course of the study. By informing the prospective subjects, by repetition and explanation, by answering their questions as they arise, and by ensuring that each individual understands each procedure, investigators elicit their informed consent and in so doing manifest respect for their dignity and autonomy. Each individual must be given as much time as is needed to reach a decision, including time for consultation with family members or others. Adequate time and resources should be set aside for informed-consent procedures.

**Language.** Informing the individual subject must not be simply a ritual recitation of the contents of a written document. Rather, the investigator must convey the information, whether orally or in writing, in language that suits the individual's level of understanding. The investigator must bear in mind that the prospective subject's ability to understand the information necessary to give informed consent depends on that individual's maturity, intelligence, education and belief system. It depends also on the investigator's ability and willingness to communicate with patience and sensitivity.

**Comprehension.** The investigator must then ensure that the prospective subject has adequately understood the information. The investigator should give each one full opportunity to ask questions and should answer them honestly, promptly and completely. In some instances the investigator may administer an oral or a written test or otherwise determine whether the information has been adequately understood.

**Documentation of consent.** Consent may be indicated in a number of ways. The subject may imply consent by voluntary actions, express consent orally, or sign a consent form. As a general rule, the subject should sign a consent form, or, in the case of incompetence, a legal guardian or other duly authorized representative should do so. The ethical review committee may approve waiver of the requirement of a signed consent form if the research carries no more than minimal risk—that is, risk that is no more likely and not greater than that attached to routine medical or psychological examination—and if the procedures to be used are only those for which signed consent forms are not customarily required outside the research context. Such waivers may also be approved when existence of a signed consent form would be an unjustified threat to the subject's confidentiality. In some cases, particularly when the information is complicated, it is advisable to give subjects information sheets to retain; these may resemble consent forms in all respects except that subjects are not required to sign them. Their wording should be cleared by the ethical review committee. When consent has been obtained orally, investigators are responsible for providing documentation or proof of consent.

**Waiver of the consent requirement.** Investigators should never initiate research involving human subjects without obtaining each subject's informed consent, unless they have received explicit approval to do so from an ethical review committee. However, when the research design involves no more than minimal risk and a requirement of individual informed consent would make the conduct of the research impracticable (for example, where the research involves only excerpting data from subjects' records), the ethical review committee may waive some or all of the elements of informed consent.

**Renewing consent.** When material changes occur in the conditions or the procedures of a study, and also periodically in long-term studies, the investigator should once again seek informed consent from the subjects. For example, new information may have come to light, either from the study or from other sources, about the risks or benefits of products being tested or about alternatives to them. Subjects should be given such information promptly. In many clinical trials, results are not disclosed to subjects and investigators until the study is concluded. This is ethically acceptable if an ethical review committee has approved their non-disclosure.

**Cultural considerations.** In some cultures an investigator may enter a community to conduct research or approach prospective subjects for their individual consent only after obtaining permission from a community leader, a council of elders, or another designated authority. Such customs must be respected. In no case, however, may the permission of a community leader or other authority substitute for individual informed consent. In some populations the use of a number of local languages may complicate the communication of information to potential subjects and the ability of an investigator to ensure that they truly understand it. Many people in all cultures are unfamiliar with, or do not readily understand, scientific concepts such as those of placebo or randomization. Sponsors and investigators should develop culturally appropriate ways to communicate information that is necessary for adherence to the standard required in the informed consent process. Also, they should describe and justify in the research protocol the procedure they plan to use in communicating information to subjects. For collaborative research in developing countries the research project should, if necessary, include the provision of resources to ensure that informed consent can indeed be obtained legitimately within different linguistic and cultural settings.

**Consent to use for research purposes biological materials (including genetic material) from subjects in clinical trials.** Consent forms for the research protocol should include a separate section for clinical-trial subjects who are requested to provide their consent for the use of their biological specimens for research. Separate consent may be appropriate in some cases (e.g., if investigators are requesting permission to conduct basic research which is not a necessary part of the clinical trial), but not in others (e.g., the clinical trial requires the use of subjects' biological materials).

**Use of medical records and biological specimens.** Medical records and biological specimens taken in the course of clinical care may be used for research without the consent of the patients/subjects only if an ethical review com-

mittee has determined that the research poses minimal risk, that the rights or interests of the patients will not be violated, that their privacy and confidentiality or anonymity are assured, and that the research is designed to answer an important question and would be impracticable if the requirement for informed consent were to be imposed. Patients have a right to know that their records or specimens may be used for research. Refusal or reluctance of individuals to agree to participate would not be evidence of impracticability sufficient to warrant waiving informed consent. Records and specimens of individuals who have specifically rejected such uses in the past may be used only in the case of public health emergencies. (See Guideline 18 Commentary, Confidentiality between physician and patient.)

**Secondary use of research records or biological specimens.** Investigators may want to use records or biological specimens that another investigator has used or collected for use, in another institution in the same or another country. This raises the issue of whether the records or specimens contain personal identifiers, or can be linked to such identifiers, and by whom. (See also Guideline 18: Safeguarding confidentiality.) If informed consent or permission was required to authorize the original collection or use of such records or specimens for research purposes, secondary uses are generally constrained by the conditions specified in the original consent. Consequently, it is essential that the original consent process anticipate, to the extent that this is feasible, any foreseeable plans for future use of the records or specimens for research. Thus, in the original process of seeking informed consent a member of the research team should discuss with, and, when indicated, request the permission of, prospective subjects as to:

- (i) whether there will or could be any secondary use and, if so, whether such secondary use will be limited with regard to the type of study that may be performed on such materials;
- (ii) the conditions under which investigators will be required to contact the research subjects for additional authorization for secondary use;
- (iii) the investigators' plans, if any, to destroy or to strip of personal identifiers the records or specimens; and
- (iv) the rights of subjects to request destruction or anonymization of biological specimens or of records or parts of records that they might consider particularly sensitive, such as photographs, videotapes or audiotapes.

(See also Guidelines 5: Obtaining informed consent: Essential information for prospective research subjects; 6: Obtaining informed consent: Obligations of sponsors and investigators; and 7: Inducement to participate.)

**Guideline 5: Obtaining informed consent: Essential information for prospective research subjects**

Before requesting an individual's consent to participate in research, the investigator must provide the following information, in language or another form of communication that the individual can understand:

- (1) that the individual is invited to participate in research, the reasons for considering the individual suitable for the research, and that participation is voluntary;
- (2) that the individual is free to refuse to participate and will be free to withdraw from the research at any time without penalty or loss of benefits to which he or she would otherwise be entitled;
- (3) the purpose of the research, the procedures to be carried out by the investigator and the subject, and an explanation of how the research differs from routine medical care;
- (4) for controlled trials, an explanation of features of the research design (e.g., randomization, double-blind-ing), and that the subject will not be told of the assigned treatment until the study has been completed and the blind has been broken;
- (5) the expected duration of the individual's participation (including number and duration of visits to the research centre and the total time involved) and the possibility of early termination of the trial or of the individual's participation in it;
- (6) whether money or other forms of material goods will be provided in return for the individual's participation and, if so, the kind and amount;
- (7) that, after the completion of the study, subjects will be informed of the findings of the research in general, and individual subjects will be informed of any finding that relates to their particular health status;
- (8) that subjects have the right of access to their data on demand, even if these data lack immediate clinical utility (unless the ethical review committee has approved temporary or permanent non-disclosure of data, in which case the subject should be informed of, and given, the reasons for such non-disclosure);
- (9) any foreseeable risks, pain or discomfort, or inconvenience to the individual (or others) associated with participation in the research, including risks to the health or well-being of a subject's spouse or partner;
- (10) the direct benefits, if any, expected to result to subjects from participating in the research
- (11) the expected benefits of the research to the community or to society at large, or contributions to scientific knowledge;
- (12) whether, when and how any products or interventions proven by the research to be safe and effective will be made available to subjects after they have completed their participation in the research, and whether they will be expected to pay for them;
- (13) any currently available alternative interventions or courses of treatment;

- (14) the provisions that will be made to ensure respect for the privacy of subjects and for the confidentiality of records in which subjects are identified;
- (15) the limits, legal or other, to the investigators' ability to safeguard confidentiality, and the possible consequences of breaches of confidentiality;
- (16) policy with regard to the use of results of genetic tests and familial genetic information, and the precautions in place to prevent disclosure of the results of a subject's genetic tests
- (17) to immediate family relatives or to others (e.g., insurance companies or employers) without the consent of the subject;
- (18) the sponsors of the research, the institutional affiliation of the investigators, and the nature and sources of funding for the research;
- (19) the possible research uses, direct or secondary, of the subject's medical records and of biological specimens taken in the course of clinical care (See also Guidelines 4 and 18 Commentaries);
- (20) whether it is planned that biological specimens collected in the research will be destroyed at its conclusion, and, if not, details about their storage (where, how, for how long, and final disposition) and possible future use, and that subjects have the right to decide about such future use, to refuse storage, and to have the material destroyed (See Guideline 4 Commentary);
- (21) whether commercial products may be developed from biological specimens, and whether the participant will receive monetary or other benefits from the development of such products;
- (22) whether the investigator is serving only as an investigator or as both investigator and the subject's physician;
- (23) the extent of the investigator's responsibility to provide medical services to the participant;
- (24) that treatment will be provided free of charge for specified types of research-related injury or for complications associated with the research, the nature and duration of such care, the name of the organization or individual that will provide the treatment, and whether there is any uncertainty regarding funding of such treatment;
- (25) in what way, and by what organization, the subject or the subject's family or dependants will be compensated for disability or death resulting from such injury (or, when indicated, that there are no plans to provide such compensation);
- (26) whether or not, in the country in which the prospective subject is invited to participate in research, the right to compensation is legally guaranteed; and
- (27) that an ethical review committee has approved or cleared the research protocol.

**Guideline 6: Obtaining informed consent: Obligations of sponsors and investigators**

Sponsors and investigators have a duty to:

- refrain from unjustified deception, undue influence, or intimidation;
- seek consent only after ascertaining that the prospective subject has adequate understanding of the relevant facts and of the consequences of participation and has had sufficient opportunity to consider whether to participate;
- as a general rule, obtain from each prospective subject a signed form as evidence of informed consent—investigators should justify any exceptions to this general rule and obtain the approval of the ethical review committee (See Guideline 4 Commentary, Documentation of consent);
- renew the informed consent of each subject if there are significant changes in the conditions or procedures of the research or if new information becomes available that could affect the willingness of subjects to continue to participate; and
- renew the informed consent of each subject in long-term studies at pre-determined intervals, even if there are no changes in the design or objectives of the research.

**Commentary on Guideline 6:** The investigator is responsible for ensuring the adequacy of informed consent from each subject. The person obtaining informed consent should be knowledgeable about the research and capable of answering questions from prospective subjects. Investigators in charge of the study must make themselves available to answer questions at the request of subjects. Any restrictions on the subject's opportunity to ask questions and receive answers before or during the research undermines the validity of the informed consent. In some types of research, potential subjects should receive counselling about risks of acquiring a disease unless they take precautions. This is especially true of HIV/AIDS vaccine research (UNAIDS Guidance Document Ethical Considerations in HIV Preventive Vaccine Research, Guidance Point 14).

**Withholding information and deception.** Sometimes, to ensure the validity of research, investigators withhold certain information in the consent process. In biomedical research, this typically takes the form of withholding information about the purpose of specific procedures. For example, subjects in clinical trials are often not told the purpose of tests performed to monitor their compliance with the protocol, since if they knew their compliance was being



monitored they might modify their behaviour and hence invalidate results. In most such cases, the prospective subjects are asked to consent to remain uninformed of the purpose of some procedures until the research is completed; after the conclusion of the study they are given the omitted information. In other cases, because a request for permission to withhold some information would jeopardize the validity of the research, subjects are not told that some information has been withheld until the research has been completed. Any such procedure must receive the explicit approval of the ethical review committee. Active deception of subjects is considerably more controversial than simply withholding certain information. Lying to subjects is a tactic not commonly employed in biomedical research. Social and behavioural scientists, however, sometimes deliberately misinform subjects to study their attitudes and behaviour. For example, scientists have pretended to be patients to study the behaviour of health-care professionals and patients in their natural settings. Some people maintain that active deception is never permissible. Others would permit it in certain circumstances. Deception is not permissible, however, in cases in which the deception itself would disguise the possibility of the subject being exposed to more than minimal risk. When deception is deemed indispensable to the methods of a study the investigators must demonstrate to an ethical review committee that no other research method would suffice; that significant advances could result from the research; and that nothing has been withheld that, if divulged, would cause a reasonable person to refuse to participate. The ethical review committee should determine the consequences for the subject of being deceived, and whether and how deceived subjects should be informed of the deception upon completion of the research. Such informing, commonly called "debriefing," ordinarily entails explaining the reasons for the deception. A subject who disapproves of having been deceived should be offered an opportunity to refuse to allow the investigator to use information thus obtained. Investigators and ethical review committees should be aware that deceiving research subjects may wrong them as well as harm them; subjects may resent not having been informed when they learn that they have participated in a study under false pretences. In some studies there may be justification for deceiving persons other than the subjects by either withholding or disguising elements of information. Such tactics are often proposed, for example, for studies of the abuse of spouses or children. An ethical review committee must review and approve all proposals to deceive persons other than the subjects. Subjects are entitled to prompt and honest answers to their questions; the ethical review committee must determine for each study whether others who are to be deceived are similarly entitled.

**Intimidation and undue influence.** Intimidation in any form invalidates informed consent. Prospective subjects who are patients often depend for medical care upon the physician/investigator, who consequently has a certain credibility in their eyes, and whose influence over them may be considerable, particularly if the study protocol has a therapeutic component. They may fear, for example, that refusal to participate would damage the therapeutic relationship or result in the withholding of health services. The physician/investigator must assure them that their decision on whether to participate will not affect the therapeutic relationship or other benefits to which they are entitled. In this situation the ethical review committee should consider whether a neutral third party should seek informed consent. The prospective subject must not be exposed to undue influence. The borderline between justifiable persuasion and undue influence is imprecise, however. The researcher should give no unjustifiable assurances about the benefits, risks or inconveniences of the research, for example, or induce a close relative or a community leader to influence a prospective subject's decision. (See also Guideline 4: Individual informed consent.)

**Risks.** Investigators should be completely objective in discussing the details of the experimental intervention, the pain and discomfort that it may entail, and known risks and possible hazards. In complex research projects it may be neither feasible nor desirable to inform prospective participants fully about every possible risk. They must, however, be informed of all risks that a 'reasonable person' would consider material to making a decision about whether to participate, including risks to a spouse or partner associated with trials of, for example, psychotropic or genital-tract medicaments. (See also Guideline 8 Commentary, Risks to groups of persons.)

**Exception to the requirement for informed consent in studies of emergency situations in which the researcher anticipates that many subjects will be unable to consent.** Research protocols are sometimes designed to address conditions occurring suddenly and rendering the patients/subjects incapable of giving informed consent. Examples are head trauma, cardiopulmonary arrest and stroke. The investigation cannot be done with patients who can give informed consent in time and there may not be time to locate a person having the authority to give permission. In such circumstances it is often necessary to proceed with the research interventions very soon after the onset of the condition in order to evaluate an investigational treatment or develop the desired knowledge. As this class of emergency exception can be anticipated, the researcher must secure the review and approval of an ethical review committee before initiating the study. If possible, an attempt should be made to identify a population that is likely to develop the condition to be studied. This can be done readily, for example, if the condition is one that recurs periodically in individuals; examples include grand mal seizures and alcohol binges. In such cases, prospective subjects should be contacted while fully capable of informed consent, and invited to consent to their involvement as research subjects during future periods of incapacitation. If they are patients of an independent physician who is also the physician-researcher, the physician should likewise seek their consent while they are fully capable of informed consent. In all cases in which approved research has begun without prior consent of patients/subjects incapable of giving informed consent because of suddenly occurring conditions, they should be given all relevant information as soon as they are in a state to receive it, and their consent to continued participation should be obtained as soon as is reasonably

possible. Before proceeding without prior informed consent, the investigator must make reasonable efforts to locate an individual who has the authority to give permission on behalf of an incapacitated patient. If such a person can be located and refuses to give permission, the patient may not be enrolled as a subject. The risks of all interventions and procedures will be justified as required by Guideline 9 (Special limitations on risks when research involves individuals who are not capable of giving consent). The researcher and the ethical review committee should agree to a maximum time of involvement of an individual without obtaining either the individual's informed consent or authorization according to the applicable legal system if the person is not able to give consent. If by that time the researcher has not obtained either consent or permission—owing either to a failure to contact a representative or to a refusal of either the patient or the person or body authorized to give permission—the participation of the patient as a subject must be discontinued. The patient or the person or body providing authorization should be offered an opportunity to forbid the use of data derived from participation of the patient as a subject without consent or permission. Where appropriate, plans to conduct emergency research without prior consent of the subjects should be publicized within the community in which it will be carried out. In the design and conduct of the research, the ethical review committee, the investigators and the sponsors should be responsive to the concerns of the community. If there is cause for concern about the acceptability of the research in the community, there should be a formal consultation with representatives designated by the community. The research should not be carried out if it does not have substantial support in the community concerned. (See Guideline 8 Commentary, Risks to groups of persons.)

**Exception to the requirement of informed consent for inclusion in clinical trials of persons rendered incapable of informed consent by an acute condition.** Certain patients with an acute condition that renders them incapable of giving informed consent may be eligible for inclusion in a clinical trial in which the majority of prospective subjects will be capable of informed consent. Such a trial would relate to a new treatment for an acute condition such as sepsis, stroke or myocardial infarction. The investigational treatment would hold out the prospect of direct benefit and would be justified accordingly, though the investigation might involve certain procedures or interventions that were not of direct benefit but carried no more than minimal risk; an example would be the process of randomization or the collection of additional blood for research purposes. For such cases the initial protocol submitted for approval to the ethical review committee should anticipate that some patients may be incapable of consent, and should propose for such patients a form of proxy consent, such as permission of the responsible relative. When the ethical review committee has approved or cleared such a protocol, an investigator may seek the permission of the responsible relative and enrol such a patient.

**Guideline 7: Inducement to participate**

Subjects may be reimbursed for lost earnings, travel costs and other expenses incurred in taking part in a study; they may also receive free medical services. Subjects, particularly those who receive no direct benefit from research, may also be paid or otherwise compensated for inconvenience and time spent. The payments should not be so large, however, or the medical services so extensive as to induce prospective subjects to consent to participate in the research against their better judgment (“undue inducement”). All payments, reimbursements and medical services provided to research subjects must have been approved by an ethical review committee.

**Commentary on Guideline 7:**

**Acceptable recompense.** Research subjects may be reimbursed for their transport and other expenses, including lost earnings, associated with their participation in research. Those who receive no direct benefit from the research may also receive a small sum of money for inconvenience due to their participation in the research. All subjects may receive medical services unrelated to the research and have procedures and tests performed free of charge.

**Unacceptable recompense.** Payments in money or in kind to research subjects should not be so large as to persuade them to take undue risks or volunteer against their better judgment. Payments or rewards that undermine a person's capacity to exercise free choice invalidate consent. It may be difficult to distinguish between suitable recompense and undue influence to participate in research. An unemployed person or a student may view promised recompense differently from an employed person. Someone without access to medical care may or may not be unduly influenced to participate in research simply to receive such care. A prospective subject may be induced to participate in order to obtain a better diagnosis or access to a drug not otherwise available; local ethical review committees may find such inducements acceptable. Monetary and in-kind recompense must, therefore, be evaluated in the light of the traditions of the particular culture and population in which they are offered, to determine whether they constitute undue influence. The ethical review committee will ordinarily be the best judge of what constitutes reasonable material recompense in particular circumstances. When research interventions or procedures that do not hold out the prospect of direct benefit present more than minimal risk, all parties involved in the research—sponsors, investigators and ethical review committees—in both funding and host countries should be careful to avoid undue material inducement.

**Incompetent persons.** Incompetent persons may be vulnerable to exploitation for financial gain by guardians. A guardian asked to give permission on behalf of an incompetent person should be offered no recompense other than a refund of travel and related expenses.

**Withdrawal from a study.** A subject who withdraws from research for reasons related to the study, such as unacceptable side-effects of a study drug, or who is withdrawn on health grounds, should be paid or recompensed as if

full participation had taken place. A subject who withdraws for any other reason should be paid in proportion to the amount of participation. An investigator who must remove a subject from the study for wilful noncompliance is entitled to withhold part or all of the payment.

**Guideline 8: Benefits and risks of study participation**

For all biomedical research involving human subjects, the investigator must ensure that potential benefits and risks are reasonably balanced and risks are minimized. Interventions or procedures that hold out the prospect of direct diagnostic, therapeutic or preventive benefit for the individual subject must be justified by the expectation that they will be at least as advantageous to the individual subject, in the light of foreseeable risks and benefits, as any available alternative. Risks of such 'beneficial' interventions or procedures must be justified in relation to expected benefits to the individual subject. Risks of interventions that do not hold out the prospect of direct diagnostic, therapeutic or preventive benefit for the individual must be justified in relation to the expected benefits to society (generalizable knowledge). The risks presented by such interventions must be reasonable in relation to the importance of the knowledge to be gained.

**Commentary on Guideline 8:** The Declaration of Helsinki in several paragraphs deals with the well-being of research subjects and the avoidance of risk. Thus, considerations related to the well-being of the human subject should take precedence over the interests of science and society (Paragraph 5); clinical testing must be preceded by adequate laboratory or animal experimentation to demonstrate a reasonable probability of success without undue risk (Paragraph 11); every project should be preceded by careful assessment of predictable risks and burdens in comparison with foreseeable benefits to the subject or to others (Paragraph 16); physician-researchers must be confident that the risks involved have been adequately assessed and can be satisfactorily managed (Paragraph 17); and the risks and burdens to the subject must be minimized, and reasonable in relation to the importance of the objective or the knowledge to be gained (Paragraph 18). Biomedical research often employs a variety of interventions of which some hold out the prospect of direct therapeutic benefit (beneficial interventions) and others are administered solely to answer the research question (non-beneficial interventions). Beneficial interventions are justified as they are in medical practice by the expectation that they will be at least as advantageous to the individuals concerned, in the light of both risks and benefits, as any available alternative. Non-beneficial interventions are assessed differently; they may be justified only by appeal to the knowledge to be gained. In assessing the risks and benefits that a protocol presents to a population, it is appropriate to consider the harm that could result from forgoing the research. Paragraphs 5 and 18 of the Declaration of Helsinki do not preclude well-informed volunteers, capable of fully appreciating risks and benefits of an investigation, from participating in research for altruistic reasons or for modest remuneration.

**Minimizing risk associated with participation in a randomized controlled trial.** In randomized controlled trials subjects risk being allocated to receive the treatment that proves inferior. They are allocated by chance to one of two or more intervention arms and followed to a predetermined end-point. (Interventions are understood to include new or established therapies, diagnostic tests and preventive measures.) An intervention is evaluated by comparing it with another intervention (a control), which is ordinarily the best current method, selected from the safe and effective treatments available globally, unless some other control intervention such as placebo can be justified ethically (See Guideline 11). To minimize risk when the intervention to be tested in a randomized controlled trial is designed to prevent or postpone a lethal or disabling outcome, the investigator must not, for purposes of conducting the trial, withhold therapy that is known to be superior to the intervention being tested, unless the withholding can be justified by the standards set forth in Guideline 11. Also, the investigator must provide in the research protocol for the monitoring of research data by an independent board (Data and Safety Monitoring Board); one function of such a board is to protect the research subjects from previously unknown adverse reactions or unnecessarily prolonged exposure to an inferior therapy. Normally at the outset of a randomized controlled trial, criteria are established for its premature termination (stopping rules or guidelines).

**Risks to groups of persons.** Research in certain fields, such as epidemiology, genetics or sociology, may present risks to the interests of communities, societies, or racially or ethnically defined groups. Information might be published that could stigmatize a group or expose its members to discrimination. Such information, for example, could indicate, rightly or wrongly, that the group has a higher than average prevalence of alcoholism, mental illness or sexually transmitted disease, or is particularly susceptible to certain genetic disorders. Plans to conduct such research should be sensitive to such considerations, to the need to maintain confidentiality during and after the study, and to the need to publish the resulting data in a manner that is respectful of the interests of all concerned, or in certain circumstances not to publish them. The ethical review committee should ensure that the interests of all concerned are given due consideration; often it will be advisable to have individual consent supplemented by community consultation. [The ethical basis for the justification of risk is elaborated further in Guideline 9.]

**Guideline 9: Special limitations on risk when research involves individuals who are not capable of giving informed consent**

When there is ethical and scientific justification to conduct research with individuals incapable of giving informed consent, the risk from research interventions that do not hold out the prospect of direct benefit for the individual subject should be no more likely and not greater than the risk attached to routine medical or psychological examination of such persons. Slight or minor increases above such risk may be permitted when there is an overriding scien-

tific or medical rationale for such increases and when an ethical review committee has approved them.

**Commentary on Guideline 9:**

**The low-risk standard.** Certain individuals or groups may have limited capacity to give informed consent either because, as in the case of prisoners, their autonomy is limited, or because they have limited cognitive capacity. For research involving persons who are unable to consent, or whose capacity to make an informed choice may not fully meet the standard of informed consent, ethical review committees must distinguish between intervention risks that do not exceed those associated with routine medical or psychological examination of such persons and risks in excess of those. When the risks of such interventions do not exceed those associated with routine medical or psychological examination of such persons, there is no requirement for special substantive or procedural protective measures apart from those generally required for all research involving members of the particular class of persons. When the risks are in excess of those, the ethical review committee must find:

- (1) that the research is designed to be responsive to the disease affecting the prospective subjects or to conditions to which they are particularly susceptible;
- (2) that the risks of the research interventions are only slightly greater than those associated with routine medical or psychological examination of such persons for the condition or set of clinical circumstances under investigation;
- (3) that the objective of the research is sufficiently important to justify exposure of the subjects to the increased risk; and
- (4) that the interventions are reasonably commensurate with the clinical interventions that the subjects have experienced or may be expected to experience in relation to the condition under investigation.

If such research subjects, including children, become capable of giving independent informed consent during the research, their consent to continued participation should be obtained. There is no internationally agreed, precise definition of a “slight or minor increase” above the risks associated with routine medical or psychological examination of such persons. Its meaning is inferred from what various ethical review committees have reported as having met the standard. Examples include additional lumbar punctures or bone-marrow aspirations in children with conditions for which such examinations are regularly indicated in clinical practice. The requirement that the objective of the research be relevant to the disease or condition affecting the prospective subjects rules out the use of such interventions in healthy children. The requirement that the research interventions be reasonably commensurate with clinical interventions that subjects may have experienced or are likely to experience for the condition under investigation is intended to enable them to draw on personal experience as they decide whether to accept or reject additional procedures for research purposes. Their choices will, therefore, be more informed even though they may not fully meet the standard of informed consent. (See also Guidelines 4: Individual informed consent; 13: Research involving vulnerable persons; 14: Research involving children; and 15: Research involving individuals who by reason of mental or behavioural disorders are not capable of giving adequately informed consent.)

**Guideline 10: Research in populations and communities with limited resources**

Before undertaking research in a population or community with limited resources, the sponsor and the investigator must make every effort to ensure that:

- the research is responsive to the health needs and the priorities of the population or community in which it is to be carried out; and
- any intervention or product developed, or knowledge generated, will be made reasonably available for the benefit of that population or community.

**Commentary on Guideline 10:** This guideline is concerned with countries or communities in which resources are limited to the extent that they are, or may be, vulnerable to exploitation by sponsors and investigators from the relatively wealthy countries and communities.

**Responsiveness of research to health needs and priorities.** The ethical requirement that research be responsive to the health needs of the population or community in which it is carried out calls for decisions on what is needed to fulfil the requirement. It is not sufficient simply to determine that a disease is prevalent in the population and that new or further research is needed: the ethical requirement of “responsiveness” can be fulfilled only if successful interventions or other kinds of health benefit are made available to the population. This is applicable especially to research conducted in countries where governments lack the resources to make such products or benefits widely available. Even when a product to be tested in a particular country is much cheaper than the standard treatment in some other countries, the government or individuals in that country may still be unable to afford it. If the knowledge gained from the research in such a country is used primarily for the benefit of populations that can afford the tested product, the research may rightly be characterized as exploitative and, therefore, unethical. When an investigational intervention has important potential for health care in the host country, the negotiation that the sponsor should undertake to determine the practical implications of “responsiveness,” as well as “reasonable availability,” should



include representatives of stakeholders in the host country; these include the national government, the health ministry, local health authorities, and concerned scientific and ethics groups, as well as representatives of the communities from which subjects are drawn and non-governmental organizations such as health advocacy groups. The negotiation should cover the health-care infrastructure required for safe and rational use of the intervention, the likelihood of authorization for distribution, and decisions regarding payments, royalties, subsidies, technology and intellectual property, as well as distribution costs, when this economic information is not proprietary. In some cases, satisfactory discussion of the availability and distribution of successful products will necessarily engage international organizations, donor governments and bilateral agencies, international nongovernmental organizations, and the private sector. The development of a health-care infrastructure should be facilitated at the onset so that it can be of use during and beyond the conduct of the research. Additionally, if an investigational drug has been shown to be beneficial, the sponsor should continue to provide it to the subjects after the conclusion of the study, and pending its approval by a drug regulatory authority. The sponsor is unlikely to be in a position to make a beneficial investigational intervention generally available to the community or population until some time after the conclusion of the study, as it may be in short supply and in any case cannot be made generally available before a drug regulatory authority has approved it. For minor research studies and when the outcome is scientific knowledge rather than a commercial product, such complex planning or negotiation is rarely, if ever, needed. There must be assurance, however, that the scientific knowledge developed will be used for the benefit of the population.

**Reasonable availability.** The issue of “reasonable availability” is complex and will need to be determined on a case-by-case basis. Relevant considerations include the length of time for which the intervention or product developed, or other agreed benefit, will be made available to research subjects, or to the community or population concerned; the severity of a subject’s medical condition; the effect of withdrawing the study drug (e.g., death of a subject); the cost to the subject or health service; and the question of undue inducement if an intervention is provided free of charge. In general, if there is good reason to believe that a product developed or knowledge generated by research is unlikely to be reasonably available to, or applied to the benefit of, the population of a proposed host country or community after the conclusion of the research, it is unethical to conduct the research in that country or community. This should not be construed as precluding studies designed to evaluate novel therapeutic concepts. As a rare exception, for example, research may be designed to obtain preliminary evidence that a drug or a class of drugs has a beneficial effect in the treatment of a disease that occurs only in regions with extremely limited resources, and it could not be carried out reasonably well in more developed communities. Such research may be justified ethically even if there is no plan in place to make a product available to the population of the host country or community at the conclusion of the preliminary phase of its development. If the concept is found to be valid, subsequent phases of the research could result in a product that could be made reasonably available at its conclusion. (See also Guidelines 3: Ethical review of externally sponsored research; 12, Equitable distribution of burdens and benefits; 20: Strengthening capacity for ethical and scientific review and biomedical research; and 21: Ethical obligation of external sponsors to provide health-care services.)

#### **Guideline 11: Choice of control in clinical trials**

As a general rule, research subjects in the control group of a trial of a diagnostic, therapeutic, or preventive intervention should receive an established effective intervention. In some circumstances it may be ethically acceptable to use an alternative comparator, such as placebo or “no treatment.” Placebo may be used:

- when there is no established effective intervention;
- when withholding an established effective intervention would expose subjects to, at most, temporary discomfort or delay in relief of symptoms; and
- when use of an established effective intervention as comparator would not yield scientifically reliable results and use of placebo would not add any risk of serious or irreversible harm to the subjects.

#### **Commentary on Guideline 11:**

**General considerations for controlled clinical trials.** The design of trials of investigational diagnostic, therapeutic or preventive interventions raises interrelated scientific and ethical issues for sponsors, investigators and ethical review committees. To obtain reliable results, investigators must compare the effects of an investigational intervention on subjects assigned to the investigational arm (or arms) of a trial with the effects that a control intervention produces in subjects drawn from the same population and assigned to its control arm. Randomization is the preferred method for assigning subjects to the various arms of the clinical trial unless another method, such as historical or literature controls, can be justified scientifically and ethically. Assignment to treatment arms by randomization, in addition to its usual scientific superiority, offers the advantage of tending to render equivalent to all subjects the foreseeable benefits and risks of participation in a trial. A clinical trial cannot be justified ethically unless it is capable of producing scientifically reliable results. When the objective is to establish the effectiveness and safety of an investigational intervention, the use of a placebo control is often much more likely than that of an active control to produce a scientifically reliable result. In many cases the ability of a trial to distinguish effective from ineffective interventions (its assay sensitivity) cannot be assured unless the control is a placebo. If, however, an effect of using a placebo would

be to deprive subjects in the control arm of an established effective intervention, and thereby to expose them to serious harm, particularly if it is irreversible, it would obviously be unethical to use a placebo.

**Placebo control in the absence of a current effective alternative.** The use of placebo in the control arm of a clinical trial is ethically acceptable when, as stated in the Declaration of Helsinki (Paragraph 29), “no proven prophylactic, diagnostic or therapeutic method exists.” Usually, in this case, a placebo is scientifically preferable to no intervention. In certain circumstances, however, an alternative design may be both scientifically and ethically acceptable, and preferable; an example would be a clinical trial of a surgical intervention, because, for many surgical interventions, either it is not possible or it is ethically unacceptable to devise a suitable placebo; for another example, in certain vaccine trials an investigator might choose to provide for those in the ‘control’ arm a vaccine that is unrelated to the investigational vaccine.

**Placebo-controlled trials that entail only minor risks.** A placebo-controlled design may be ethically acceptable, and preferable on scientific grounds, when the condition for which patients/subjects are randomly assigned to placebo or active treatment is only a small deviation in physiological measurements, such as slightly raised blood pressure or a modest increase in serum cholesterol; and if delaying or omitting available treatment may cause only temporary discomfort (e.g., common headache) and no serious adverse consequences. The ethical review committee must be fully satisfied that the risks of withholding an established effective intervention are truly minor and short-lived.

**Placebo control when active control would not yield reliable results.** A related but distinct rationale for using a placebo control rather than an established effective intervention is that the documented experience with the established effective intervention is not sufficient to provide a scientifically reliable comparison with the intervention being investigated; it is then difficult, or even impossible, without using a placebo, to design a scientifically reliable study. This is not always, however, an ethically acceptable basis for depriving control subjects of an established effective intervention in clinical trials; only when doing so would not add any risk of serious harm, particularly irreversible harm, to the subjects would it be ethically acceptable to do so. In some cases, the condition at which the intervention is aimed (for example, cancer or HIV / AIDS) will be too serious to deprive control subjects of an established effective intervention. This latter rationale (when active control would not yield reliable results) differs from the former (trials that entail only minor risks) in emphasis. In trials that entail only minor risks the investigative interventions are aimed at relatively trivial conditions, such as the common cold or hair loss; forgoing an established effective intervention for the duration of a trial deprives control subjects of only minor benefits. It is for this reason that it is not unethical to use a placebo-control design. Even if it were possible to design a so-called “non-inferiority,” or “equivalency,” trial using an active control, it would still not be unethical in these circumstances to use a placebo-control design. In any event, the researcher must satisfy the ethical review committee that the safety and human rights of the subjects will be fully protected, that prospective subjects will be fully informed about alternative treatments, and that the purpose and design of the study are scientifically sound. The ethical acceptability of such placebo-controlled studies increases as the period of placebo use is decreased, and when the study design permits change to active treatment (“escape treatment”) if intolerable symptoms occur.

**Exceptional use of a comparator other than an established effective intervention.** An exception to the general rule is applicable in some studies designed to develop a therapeutic, preventive or diagnostic intervention for use in a country or community in which an established effective intervention is not available and unlikely in the foreseeable future to become available, usually for economic or logistic reasons. The purpose of such a study is to make available to the population of the country or community an effective alternative to an established effective intervention that is locally unavailable. Accordingly, the proposed investigational intervention must be responsive to the health needs of the population from which the research subjects are recruited and there must be assurance that, if it proves to be safe and effective, it will be made reasonably available to that population. Also, the scientific and ethical review committees must be satisfied that the established effective intervention cannot be used as comparator because its use would not yield scientifically reliable results that would be relevant to the health needs of the study population. In these circumstances an ethical review committee can approve a clinical trial in which the comparator is other than an established effective intervention, such as placebo or no treatment or a local remedy. However, some people strongly object to the exceptional use of a comparator other than an established effective intervention because it could result in exploitation of poor and disadvantaged populations. The objection rests on three arguments:

- (1) Placebo control could expose research subjects to risk of serious or irreversible harm when the use of an established effective intervention as comparator could avoid the risk.
- (2) Not all scientific experts agree about conditions under which an established effective intervention used as a comparator would not yield scientifically reliable results.
- (3) An economic reason for the unavailability of an established effective intervention cannot justify a placebo-controlled study in a country of limited resources when it would be unethical to conduct a study with the same design in a population with general access to the effective intervention outside the study.

**Placebo control when an established effective intervention is not available in the host country.** The question addressed here is: when should an exception be allowed to the general rule that subjects in the control arm of a

clinical trial should receive an established effective intervention? The usual reason for proposing the exception is that, for economic or logistic reasons, an established effective intervention is not in general use or available in the country in which the study will be conducted, whereas the investigational intervention could be made available, given the finances and infrastructure of the country. Another reason that may be advanced for proposing a placebo-controlled trial is that using an established effective intervention as the control would not produce scientifically reliable data relevant to the country in which the trial is to be conducted. Existing data about the effectiveness and safety of the established effective intervention may have been accumulated under circumstances unlike those of the population in which it is proposed to conduct the trial; this, it may be argued, could make their use in the trial unreliable. One reason could be that the disease or condition manifests itself differently in different populations, or other uncontrolled factors could invalidate the use of existing data for comparative purposes. The use of placebo control in these circumstances is ethically controversial, for the following reasons:

- Sponsors of research might use poor countries or communities as testing grounds for research that would be difficult or impossible in countries where there is general access to an established effective intervention, and the investigational intervention, if proven safe and effective, is likely to be marketed in countries in which an established effective intervention is already available and it is not likely to be marketed in the host country.
- The research subjects, both active-arm and control-arm, are patients who may have a serious, possibly life-threatening, illness. They do not normally have access to an established effective intervention currently available to similar patients in many other countries. According to the requirements of a scientifically reliable trial, investigators, who may be their attending physicians, would be expected to enrol some of those patients/subjects in the placebo-control arm. This would appear to be a violation of the physician's fiduciary duty of undivided loyalty to the patient, particularly in cases in which known effective therapy could be made available to the patients.
- An argument for exceptional use of placebo control may be that a health authority in a country where an established effective intervention is not generally available or affordable, and unlikely to become available or affordable in the foreseeable future, seeks to develop an affordable intervention specifically for a health problem affecting its population. There may then be less reason for concern that a placebo design is exploitative, and therefore unethical, as the health authority has responsibility for the population's health, and there are valid health grounds for testing an apparently beneficial intervention. In such circumstances an ethical review committee may determine that the proposed trial is ethically acceptable, provided that the rights and safety of subjects are safeguarded.

Ethical review committees will need to engage in careful analysis of the circumstances to determine whether the use of placebo rather than an established effective intervention is ethically acceptable. They will need to be satisfied that an established effective intervention is truly unlikely to become available and implementable in that country. This may be difficult to determine, however, as it is clear that, with sufficient persistence and ingenuity, ways may be found of accessing previously unattainable medicinal products, and thus avoiding the ethical issue raised by the use of placebo control. When the rationale of proposing a placebo-controlled trial is that the use of an established effective intervention as the control would not yield scientifically reliable data relevant to the proposed host country, the ethical review committee in that country has the option of seeking expert opinion as to whether use of an established effective intervention in the control arm would invalidate the results of the research.

**An "equivalency trial" as an alternative to a placebo-controlled trial.** An alternative to a placebo-control design in these circumstances would be an "equivalency trial," which would compare an investigational intervention with an established effective intervention and produce scientifically reliable data. An equivalency trial in a country in which no established effective intervention is available is not designed to determine whether the investigational intervention is superior to an established effective intervention currently used somewhere in the world; its purpose is, rather, to determine whether the investigational intervention is, in effectiveness and safety, equivalent to, or almost equivalent to, the established effective intervention. It would be hazardous to conclude, however, that an intervention demonstrated to be equivalent, or almost equivalent, to an established effective intervention is better than nothing or superior to whatever intervention is available in the country; there may be substantial differences between the results of superficially identical clinical trials carried out in different countries. If there are such differences, it would be scientifically acceptable and ethically preferable to conduct such 'equivalency' trials in countries in which an established effective intervention is already available. If there are substantial grounds for the ethical review committee to conclude that an established effective intervention will not become available and implementable, the committee should obtain assurances from the parties concerned that plans have been agreed for making the investigational intervention reasonably available in the host country or community once its effectiveness and safety have been established. Moreover, when the study has external sponsorship, approval should usually be dependent on the sponsors and the health authorities of the host country having engaged in a process of negotiation and planning, including justifying the study in regard to local health-care needs.

**Means of minimizing harm to placebo-control subjects.** Even when placebo controls are justified on one of the

bases set forth in the guideline, there are means of minimizing the possibly harmful effect of being in the control arm. First, a placebo-control group need not be untreated. An add-on design may be employed when the investigational therapy and a standard treatment have different mechanisms of action. The treatment to be tested and placebo are each added to a standard treatment. Such studies have a particular place when a standard treatment is known to decrease mortality or irreversible morbidity but a trial with standard treatment as the active control cannot be carried out or would be difficult to interpret [International Conference on Harmonisation (ICH) Guideline: Choice of Control Group and Related Issues in Clinical Trials, 2000]. In testing for improved treatment of life-threatening diseases such as cancer, HIV/AIDS, or heart failure, add-on designs are a particularly useful means of finding improvements in interventions that are not fully effective or may cause intolerable side-effects. They have a place also in respect of treatment for epilepsy, rheumatism and osteoporosis, for example, because withholding of established effective therapy could result in progressive disability, unacceptable discomfort or both. Second, as indicated in Guideline 8 Commentary, when the intervention to be tested in a randomized controlled trial is designed to prevent or postpone a lethal or disabling outcome, the investigator minimizes harmful effects of placebo-control studies by providing in the research protocol for the monitoring of research data by an independent Data and Safety Monitoring Board (DSMB). One function of such a board is to protect the research subjects from previously unknown adverse reactions; another is to avoid unnecessarily prolonged exposure to an inferior therapy. The board fulfils the latter function by means of interim analyses of the data pertaining to efficacy to ensure that the trial does not continue beyond the point at which an investigational therapy is demonstrated to be effective. Normally, at the outset of a randomized controlled trial, criteria are established for its premature termination (stopping rules or guidelines). In some cases the DSMB is called upon to perform "conditional power calculations," designed to determine the probability that a particular clinical trial could ever show that the investigational therapy is effective. If that probability is very small, the DSMB is expected to recommend termination of the clinical trial, because it would be unethical to continue it beyond that point. In most cases of research involving human subjects, it is unnecessary to appoint a DSMB. To ensure that research is carefully monitored for the early detection of adverse events, the sponsor or the principal investigator appoints an individual to be responsible for advising on the need to consider changing the system of monitoring for adverse events or the process of informed consent, or even to consider terminating the study.

**Guideline 12: Equitable distribution of burdens and benefits in the selection of groups of subjects in research**

Groups or communities to be invited to be subjects of research should be selected in such a way that the burdens and benefits of the research will be equitably distributed. The exclusion of groups or communities that might benefit from study participation must be justified.

**Commentary on Guideline 12:**

**General considerations.** Equity requires that no group or class of persons should bear more than its fair share of the burdens of participation in research. Similarly, no group should be deprived of its fair share of the benefits of research, short-term or long-term; such benefits include the direct benefits of participation as well as the benefits of the new knowledge that the research is designed to yield. When burdens or benefits of research are to be apportioned unequally among individuals or groups of persons, the criteria for unequal distribution should be morally justifiable and not arbitrary. In other words, unequal allocation must not be inequitable. Subjects should be drawn from the qualifying population in the general geographic area of the trial without regard to race, ethnicity, economic status or gender unless there is a sound scientific reason to do otherwise. In the past, groups of persons were excluded from participation in research for what were then considered good reasons. As a consequence of such exclusions, information about the diagnosis, prevention and treatment of diseases in such groups of persons is limited. This has resulted in a serious class injustice. If information about the management of diseases is considered a benefit that is distributed within a society, it is unjust to deprive groups of persons of that benefit. Such documents as the Declaration of Helsinki and the UNAIDS Guidance Document Ethical Considerations in HIV Preventive Vaccine Research, and the policies of many national governments and professional societies, recognize the need to redress these injustices by encouraging the participation of previously excluded groups in basic and applied biomedical research. Members of vulnerable groups also have the same entitlement to access to the benefits of investigational interventions that show promise of therapeutic benefit as persons not considered vulnerable, particularly when no superior or equivalent approaches to therapy are available. There has been a perception, sometimes correct and sometimes incorrect, that certain groups of persons have been overused as research subjects. In some cases such overuse has been based on the administrative availability of the populations. Research hospitals are often located in places where members of the lowest socioeconomic classes reside, and this has resulted in an apparent overuse of such persons. Other groups that may have been overused because they were conveniently available to researchers include students in investigators' classes, residents of long-term care facilities and subordinate members of hierarchical institutions. Impoverished groups have been overused because of their willingness to serve as subjects in exchange for relatively small stipends. Prisoners have been considered ideal subjects for Phase I drug studies because of their highly regimented lives and, in many cases, their conditions of economic deprivation. Overuse of certain groups, such as the poor or the administratively available, is unjust for several reasons. It is unjust to selectively recruit impoverished people to serve as research subjects simply because they can be more easily induced to participate in exchange for small payments. In most



cases, these people would be called upon to bear the burdens of research so that others who are better off could enjoy the benefits. However, although the burdens of research should not fall disproportionately on socio-economically disadvantaged groups, neither should such groups be categorically excluded from research protocols. It would not be unjust to selectively recruit poor people to serve as subjects in research designed to address problems that are prevalent in their group—malnutrition, for example. Similar considerations apply to institutionalized groups or those whose availability to the investigators is for other reasons administratively convenient. Not only may certain groups within a society be inappropriately overused as research subjects, but also entire communities or societies may be overused. This has been particularly likely to occur in countries or communities with insufficiently well-developed systems for the protection of the rights and welfare of human research subjects. Such overuse is especially questionable when the populations or communities concerned bear the burdens of participation in research but are extremely unlikely ever to enjoy the benefits of new knowledge and products developed as a result of the research. (See Guideline 10: Research in populations and communities with limited resources.)

**Guideline 13: Research involving vulnerable persons**

Special justification is required for inviting vulnerable individuals to serve as research subjects and, if they are selected, the means of protecting their rights and welfare must be strictly applied.

**Commentary on Guideline 13:** Vulnerable persons are those who are relatively (or absolutely) incapable of protecting their own interests. More formally, they may have insufficient power, intelligence, education, resources, strength, or other needed attributes to protect their own interests.

**General considerations.** The central problem presented by plans to involve vulnerable persons as research subjects is that such plans may entail an inequitable distribution of the burdens and benefits of research participation. Classes of individuals conventionally considered vulnerable are those with limited capacity or freedom to consent or to decline to consent. They are the subject of specific guidelines in this document (Guidelines 14, 15) and include children, and persons who because of mental or behavioural disorders are incapable of giving informed consent. Ethical justification of their involvement usually requires that investigators satisfy ethical review committees that:

- the research could not be carried out equally well with less vulnerable subjects;
- the research is intended to obtain knowledge that will lead to improved diagnosis, prevention or treatment of diseases or other health problems characteristic of, or unique to, the vulnerable class— either the actual subjects or other similarly situated members of the vulnerable class;
- research subjects and other members of the vulnerable class from which subjects are recruited will ordinarily be assured reasonable access to any diagnostic, preventive or therapeutic products that will become available as a consequence of the research;
- the risks attached to interventions or procedures that do not hold out the prospect of direct health-related benefit will not exceed those associated with routine medical or psychological examination of such persons unless an ethical review committee authorizes a slight increase over this level of risk (Guideline 9); and
- when the prospective subjects are either incompetent or otherwise substantially unable to give informed consent, their agreement will be supplemented by the permission of their legal guardians or other appropriate representatives.

**Other vulnerable groups.** The quality of the consent of prospective subjects who are junior or subordinate members of a hierarchical group requires careful consideration, as their agreement to volunteer may be unduly influenced, whether justified or not, by the expectation of preferential treatment if they agree or by fear of disapproval or retaliation if they refuse. Examples of such groups are medical and nursing students, subordinate hospital and laboratory personnel, employees of pharmaceutical companies, and members of the armed forces or police. Because they work in close proximity to investigators, they tend to be called upon more often than others to serve as research subjects, and this could result in inequitable distribution of the burdens and benefits of research. Elderly persons are commonly regarded as vulnerable. With advancing age, people are increasingly likely to acquire attributes that define them as vulnerable. They may, for example, be institutionalized or develop varying degrees of dementia. If and when they acquire such vulnerability-defining attributes, and not before, it is appropriate to consider them vulnerable and to treat them accordingly. Other groups or classes may also be considered vulnerable. They include residents of nursing homes, people receiving welfare benefits or social assistance and other poor people and the unemployed, patients in emergency rooms, some ethnic and racial minority groups, homeless persons, nomads, refugees or displaced persons, prisoners, patients with incurable disease, individuals who are politically powerless, and members of communities unfamiliar with modern medical concepts. To the extent that these and other classes of people have attributes resembling those of classes identified as vulnerable, the need for special protection of their rights and welfare should be reviewed and applied, where relevant. Persons who have serious, potentially disabling or life-threatening diseases are highly vulnerable. Physicians sometimes treat such patients with drugs or other therapies not yet licensed for general availability because studies designed to establish their safety and efficacy have not been completed. This is compatible with the Declaration of Helsinki, which states in Paragraph 32: "In the treatment of a patient, where proven...therapeutic methods do not exist or have been ineffective, the physician, with informed

consent from the patient, must be free to use unproven or new...therapeutic measures, if in the physician's judgement it offers hope of saving life, re-establishing health or alleviating suffering." Such treatment, commonly called 'compassionate use,' is not properly regarded as research, but it can contribute to ongoing research into the safety and efficacy of the interventions used. Although, on the whole, investigators must study less vulnerable groups before involving more vulnerable groups, some exceptions are justified. In general, children are not suitable for Phase I drug trials or for Phase I or II vaccine trials, but such trials may be permissible after studies in adults have shown some therapeutic or preventive effect. For example, a Phase II vaccine trial seeking evidence of immunogenicity in infants may be justified when a vaccine has shown evidence of preventing or slowing progression of an infectious disease in adults, or Phase I research with children may be appropriate because the disease to be treated does not occur in adults or is manifested differently in children (Appendix 3: The phases of clinical trials of vaccines and drugs).

#### **Guideline 14: Research involving children**

Before undertaking research involving children, the investigator must ensure that:

- the research might not equally well be carried out with adults;
- the purpose of the research is to obtain knowledge relevant to the health needs of children;
- a parent or legal representative of each child has given permission;
- the agreement (assent) of each child has been obtained to the extent of the child's capabilities; and
- a child's refusal to participate or continue in the research will be respected.

#### **Commentary on Guideline 14:**

**Justification of the involvement of children in biomedical research.** The participation of children is indispensable for research into diseases of childhood and conditions to which children are particularly susceptible (cf. vaccine trials), as well as for clinical trials of drugs that are designed for children as well as adults. In the past, many new products were not tested for children though they were directed towards diseases also occurring in childhood; thus children either did not benefit from these new drugs or were exposed to them though little was known about their specific effects or safety in children. Now it is widely agreed that, as a general rule, the sponsor of any new therapeutic, diagnostic or preventive product that is likely to be indicated for use in children is obliged to evaluate its safety and efficacy for children before it is released for general distribution.

**Assent of the child.** The willing cooperation of the child should be sought, after the child has been informed to the extent that the child's maturity and intelligence permit. The age at which a child becomes legally competent to give consent differs substantially from one jurisdiction to another; in some countries the "age of consent" established in their different provinces, states or other political subdivisions varies considerably. Often children who have not yet reached the legally established age of consent can understand the implications of informed consent and go through the necessary procedures; they can therefore knowingly agree to serve as research subjects. Such knowing agreement, sometimes referred to as assent, is insufficient to permit participation in research unless it is supplemented by the permission of a parent, a legal guardian or other duly authorized representative. Some children who are too immature to be able to give knowing agreement, or assent, may be able to register a 'deliberate objection,' an expression of disapproval or refusal of a proposed procedure. The deliberate objection of an older child, for example, is to be distinguished from the behaviour of an infant, who is likely to cry or withdraw in response to almost any stimulus. Older children, who are more capable of giving assent, should be selected before younger children or infants, unless there are valid scientific reasons related to age for involving younger children first. A deliberate objection by a child to taking part in research should always be respected even if the parents have given permission, unless the child needs treatment that is not available outside the context of research, the investigational intervention shows promise of therapeutic benefit, and there is no acceptable alternative therapy. In such a case, particularly if the child is very young or immature, a parent or guardian may override the child's objections. If the child is older and more nearly capable of independent informed consent, the investigator should seek the specific approval or clearance of the scientific and ethical review committees for initiating or continuing with the investigational treatment. If child subjects become capable of independent informed consent during the research, their informed consent to continued participation should be sought and their decision respected. A child with a likely fatal illness may object or refuse assent to continuation of a burdensome or distressing intervention. In such circumstances parents may press an investigator to persist with an investigational intervention against the child's wishes. The investigator may agree to do so if the intervention shows promise of preserving or prolonging life and there is no acceptable alternative treatment. In such cases, the investigator should seek the specific approval or clearance of the ethical review committee before agreeing to override the wishes of the child.

**Permission of a parent or guardian.** The investigator must obtain the permission of a parent or guardian in accordance with local laws or established procedures. It may be assumed that children over the age of 12 or 13 years are usually capable of understanding what is necessary to give adequately informed consent, but their consent (assent) should normally be complemented by the permission of a parent or guardian, even when local law does not require such permission. Even when the law requires parental permission, however, the assent of the child must be obtained.

In some jurisdictions, some individuals who are below the general age of consent are regarded as “emancipated” or “mature” minors and are authorized to consent without the agreement or even the awareness of their parents or guardians. They may be married or pregnant or be already parents or living independently. Some studies involve investigation of adolescents’ beliefs and behaviour regarding sexuality or use of recreational drugs; other research addresses domestic violence or child abuse. For studies on these topics, ethical review committees may waive parental permission if, for example, parental knowledge of the subject matter may place the adolescents at some risk of questioning or even intimidation by their parents. Because of the issues inherent in obtaining assent from children in institutions, such children should only exceptionally be subjects of research. In the case of institutionalized children without parents, or whose parents are not legally authorized to grant permission, the ethical review committee may require sponsors or investigators to provide it with the opinion of an independent, concerned, expert advocate for institutionalized children as to the propriety of undertaking the research with such children.

**Observation of research by a parent or guardian.** A parent or guardian who gives permission for a child to participate in research should be given the opportunity, to a reasonable extent, to observe the research as it proceeds, so as to be able to withdraw the child if the parent or guardian decides it is in the child’s best interests to do so.

**Psychological and medical support.** Research involving children should be conducted in settings in which the child and the parent can obtain adequate medical and psychological support. As an additional protection for children, an investigator may, when possible, obtain the advice of a child’s family physician, paediatrician or other health-care provider on matters concerning the child’s participation in the research.

(See also Guideline 8: Benefits and risks of study participation; Guideline 9: Special limitations on risks when subjects are not capable of giving consent; and Guideline 13: Research involving vulnerable persons.)

**Guideline 15: Research involving individuals who by reason of mental or behavioural disorders are not capable of giving adequately informed consent**

Before undertaking research involving individuals who by reason of mental or behavioural disorders are not capable of giving adequately informed consent, the investigator must ensure that:

- such persons will not be subjects of research that might equally well be carried out on persons whose capacity to give adequately informed consent is not impaired;
- the purpose of the research is to obtain knowledge relevant to the particular health needs of persons with mental or behavioural disorders;
- the consent of each subject has been obtained to the extent of that person’s capabilities, and a prospective subject’s refusal to participate in research is always respected, unless, in exceptional circumstances, there is no reasonable medical alternative and local law permits overriding the objection; and
- in cases where prospective subjects lack capacity to consent, permission is obtained from a responsible family member or a legally authorized representative in accordance with applicable law.

**Commentary on Guideline 15:**

**General considerations.** Most individuals with mental or behavioural disorders are capable of giving informed consent; this Guideline is concerned only with those who are not capable or who because their condition deteriorates become temporarily incapable. They should never be subjects of research that might equally well be carried out on persons in full possession of their mental faculties, but they are clearly the only subjects suitable for a large part of research into the origins and treatment of certain severe mental or behavioural disorders.

**Consent of the individual.** The investigator must obtain the approval of an ethical review committee to include in research persons who by reason of mental or behavioural disorders are not capable of giving informed consent. The willing cooperation of such persons should be sought to the extent that their mental state permits, and any objection on their part to taking part in any study that has no components designed to benefit them directly should always be respected. The objection of such an individual to an investigational intervention intended to be of therapeutic benefit should be respected unless there is no reasonable medical alternative and local law permits overriding the objection. The agreement of an immediate family member or other person with a close personal relationship with the individual should be sought, but it should be recognized that these proxies may have their own interests that may call their permission into question. Some relatives may not be primarily concerned with protecting the rights and welfare of the patients. Moreover, a close family member or friend may wish to take advantage of a research study in the hope that it will succeed in “curing” the condition. Some jurisdictions do not permit third-party permission for subjects lacking capacity to consent. Legal authorization may be necessary to involve in research an individual who has been committed to an institution by a court order. Serious illness in persons who because of mental or behavioural disorders are unable to give adequately informed consent. Persons who because of mental or behavioural disorders are unable to give adequately informed consent and who have, or are at risk of, serious illnesses such as HIV infection, cancer or hepatitis should not be deprived of the possible benefits of investigational drugs, vaccines or devices that show promise of therapeutic or preventive benefit, particularly when no superior or equivalent therapy or prevention is available. Their entitlement to access to such therapy or prevention is justified ethically on the same grounds as is such entitlement for other vulnerable groups. Persons who are unable to give adequately informed consent by

reason of mental or behavioural disorders are, in general, not suitable for participation in formal clinical trials except those trials that are designed to be responsive to their particular health needs and can be carried out only with them.

(See also Guidelines 8: Benefits and risks of study participation; 9: Special limitations on risks when subjects are not capable of giving consent; and 13: Research involving vulnerable persons.)

**Guideline 16: Women as research subjects**

Investigators, sponsors or ethical review committees should not exclude women of reproductive age from biomedical research. The potential for becoming pregnant during a study should not, in itself, be used as a reason for precluding or limiting participation. However, a thorough discussion of risks to the pregnant woman and to her fetus is a prerequisite for the woman's ability to make a rational decision to enrol in a clinical study. In this discussion, if participation in the research might be hazardous to a fetus or a woman if she becomes pregnant, the sponsors/investigators should guarantee the prospective subject a pregnancy test and access to effective contraceptive methods before the research commences. Where such access is not possible, for legal or religious reasons, investigators should not recruit for such possibly hazardous research women who might become pregnant.

**Commentary on Guideline 16:** Women in most societies have been discriminated against with regard to their involvement in research. Women who are biologically capable of becoming pregnant have been customarily excluded from formal clinical trials of drugs, vaccines and medical devices owing to concern about undetermined risks to the fetus. Consequently, relatively little is known about the safety and efficacy of most drugs, vaccines or devices for such women, and this lack of knowledge can be dangerous. A general policy of excluding from such clinical trials women biologically capable of becoming pregnant is unjust in that it deprives women as a class of persons of the benefits of the new knowledge derived from the trials. Further, it is an affront to their right of self-determination. Nevertheless, although women of childbearing age should be given the opportunity to participate in research, they should be helped to understand that the research could include risks to the fetus if they become pregnant during the research. Although this general presumption favours the inclusion of women in research, it must be acknowledged that in some parts of the world women are vulnerable to neglect or harm in research because of their social conditioning to submit to authority, to ask no questions, and to tolerate pain and suffering. When women in such situations are potential subjects in research, investigators need to exercise special care in the informed consent process to ensure that they have adequate time and a proper environment in which to take decisions on the basis of clearly given information.

**Individual consent of women.** In research involving women of reproductive age, whether pregnant or non-pregnant, only the informed consent of the woman herself is required for her participation. In no case should the permission of a spouse or partner replace the requirement of individual informed consent. If women wish to consult with their husbands or partners or seek voluntarily to obtain their permission before deciding to enrol in research, that is not only ethically permissible but in some contexts highly desirable. A strict requirement of authorization of spouse or partner, however, violates the substantive principle of respect for persons. A thorough discussion of risks to the pregnant woman and to her fetus is a prerequisite for the woman's ability to make a rational decision to enrol in a clinical study. For women who are not pregnant at the outset of a study but who might become pregnant while they are still subjects, the consent discussion should include information about the alternative of voluntarily withdrawing from the study and, where legally permissible, terminating the pregnancy. Also, if the pregnancy is not terminated, they should be guaranteed a medical follow-up.

**Guideline 17: Pregnant women as research participants.**

Pregnant women should be presumed to be eligible for participation in biomedical research. Investigators and ethical review committees should ensure that prospective subjects who are pregnant are adequately informed about the risks and benefits to themselves, their pregnancies, the fetus and their subsequent offspring, and to their fertility. Research in this population should be performed only if it is relevant to the particular health needs of a pregnant woman or her fetus, or to the health needs of pregnant women in general, and, when appropriate, if it is supported by reliable evidence from animal experiments, particularly as to risks of teratogenicity and mutagenicity.

**Commentary on Guideline 17:** The justification of research involving pregnant women is complicated by the fact that it may present risks and potential benefits to two beings—the woman and the fetus—as well as to the person the fetus is destined to become. Though the decision about acceptability of risk should be made by the mother as part of the informed consent process, it is desirable in research directed at the health of the fetus to obtain the father's opinion also, when possible. Even when evidence concerning risks is unknown or ambiguous, the decision about acceptability of risk to the fetus should be made by the woman as part of the informed consent process. Especially in communities or societies in which cultural beliefs accord more importance to the fetus than to the woman's life or health, women may feel constrained to participate, or not to participate, in research. Special safeguards should be established to prevent undue inducement to pregnant women to participate in research in which interventions hold out the prospect of direct benefit to the fetus. Where fetal abnormality is not recognized as an indication for abortion, pregnant women should not be recruited for research in which there is a realistic basis for concern that fetal abnormality may occur as a consequence of participation as a subject in research. Investigators should include in protocols on research on pregnant women a plan for monitoring the outcome of the pregnancy with regard to both the health of the woman and the short-term and long-term health of the child.



**Guideline 18: Safeguarding confidentiality**

The investigator must establish secure safeguards of the confidentiality of subjects' research data. Subjects should be told the limits, legal or other, to the investigators' ability to safeguard confidentiality and the possible consequences of breaches of confidentiality.

**Commentary on Guideline 18:**

**Confidentiality between investigator and subject.** Research relating to individuals and groups may involve the collection and storage of information that, if disclosed to third parties, could cause harm or distress. Investigators should arrange to protect the confidentiality of such information by, for example, omitting information that might lead to the identification of individual subjects, limiting access to the information, anonymizing data, or other means. During the process of obtaining informed consent the investigator should inform the prospective subjects about the precautions that will be taken to protect confidentiality. Prospective subjects should be informed of limits to the ability of investigators to ensure strict confidentiality and of the foreseeable adverse social consequences of breaches of confidentiality. Some jurisdictions require the reporting to appropriate agencies of, for instance, certain communicable diseases or evidence of child abuse or neglect. Drug regulatory authorities have the right to inspect clinical-trial records, and a sponsor's clinical-compliance audit staff may require and obtain access to confidential data. These and similar limits to the ability to maintain confidentiality should be anticipated and disclosed to prospective subjects. Participation in HIV/AIDS drug and vaccine trials may impose upon the research subjects significant associated risks of social discrimination or harm; such risks merit consideration equal to that given to adverse medical consequences of the drugs and vaccines. Efforts must be made to reduce their likelihood and severity. For example, subjects in vaccine trials must be enabled to demonstrate that their HIV seropositivity is due to their having been vaccinated rather than to natural infection. This may be accomplished by providing them with documents attesting to their participation in vaccine trials, or by maintaining a confidential register of trial subjects, from which information can be made available to outside agencies at a subject's request.

**Confidentiality between physician and patient.** Patients have the right to expect that their physicians and other health-care professionals will hold all information about them in strict confidence and disclose it only to those who need, or have a legal right to, the information, such as other attending physicians, nurses, or other health-care workers who perform tasks related to the diagnosis and treatment of patients. A treating physician should not disclose any identifying information about patients to an investigator unless each patient has given consent to such disclosure and unless an ethical review committee has approved such disclosure. Physicians and other health care professionals record the details of their observations and interventions in medical and other records. Epidemiological studies often make use of such records. For such studies it is usually impracticable to obtain the informed consent of each identifiable patient; an ethical review committee may waive the requirement for informed consent when this is consistent with the requirements of applicable law and provided that there are secure safeguards of confidentiality. (See also Guideline 4 Commentary: Waiver of the consent requirement.) In institutions in which records may be used for research purposes without the informed consent of patients, it is advisable to notify patients generally of such practices; notification is usually by means of a statement in patient-information brochures. For research limited to patients' medical records, access must be approved or cleared by an ethical review committee and must be supervised by a person who is fully aware of the confidentiality requirements.

**Issues of confidentiality in genetic research.** An investigator who proposes to perform genetic tests of known clinical or predictive value on biological samples that can be linked to an identifiable individual must obtain the informed consent of the individual or, when indicated, the permission of a legally authorized representative. Conversely, before performing a genetic test that is of known predictive value or gives reliable information about a known heritable condition, and individual consent or permission has not been obtained, investigators must see that biological samples are fully anonymized and unlinked; this ensures that no information about specific individuals can be derived from such research or passed back to them. When biological samples are not fully anonymized and when it is anticipated that there may be valid clinical or research reasons for linking the results of genetic tests to research subjects, the investigator in seeking informed consent should assure prospective subjects that their identity will be protected by secure coding of their samples (encryption) and by restricted access to the database, and explain to them this process. When it is clear that for medical or possibly research reasons the results of genetic tests will be reported to the subject or to the subject's physician, the subject should be informed that such disclosure will occur and that the samples to be tested will be clearly labelled. Investigators should not disclose results of diagnostic genetic tests to relatives of subjects without the subjects' consent. In places where immediate family relatives would usually expect to be informed of such results, the research protocol, as approved or cleared by the ethical review committee, should indicate the precautions in place to prevent such disclosure of results without the subjects' consent; such plans should be clearly explained during the process of obtaining informed consent.

**Guideline 19: Right of injured subjects to treatment and compensation**

Investigators should ensure that research subjects who suffer injury as a result of their participation are entitled to free medical treatment for such injury and to such financial or other assistance as would compensate them equitably for any resultant impairment, disability or handicap. In the case of death as a result of their participation, their dependants are entitled to compensation. Subjects must not be asked to waive the right to compensation.

**Commentary on Guideline 19:**

Guideline 19 is concerned with two distinct but closely related entitlements. The first is the uncontroversial entitlement to free medical treatment and compensation for accidental injury inflicted by procedures or interventions performed exclusively to accomplish the purposes of research (non-therapeutic procedures). The second is the entitlement of dependants to material compensation for death or disability occurring as a direct result of study participation. Implementing a compensation system for research-related injuries or death is likely to be complex, however.

**Equitable compensation and free medical treatment.** Compensation is owed to research subjects who are disabled as a consequence of injury from procedures performed solely to accomplish the purposes of research. Compensation and free medical treatment are generally not owed to research subjects who suffer expected or foreseen adverse reactions to investigational therapeutic, diagnostic or preventive interventions when such reactions are not different in kind from those known to be associated with established interventions in standard medical practice. In the early stages of drug testing (Phase I and early Phase II), it is generally unreasonable to assume that an investigational drug holds out the prospect of direct benefit for the individual subject; accordingly, compensation is usually owed to individuals who become disabled as a result of serving as subjects in such studies. The ethical review committee should determine in advance:

- (i) the injuries for which subjects will receive free treatment and, in case of impairment, disability or handicap resulting from such injuries, be compensated; and
- (ii) the injuries for which they will not be compensated.

Prospective subjects should be informed of the committee's decisions, as part of the process of informed consent. As an ethical review committee cannot make such advance determination in respect of unexpected or unforeseen adverse reactions, such reactions must be presumed compensable and should be reported to the committee for prompt review as they occur. Subjects must not be asked to waive their rights to compensation or required to show negligence or lack of a reasonable degree of skill on the part of the investigator in order to claim free medical treatment or compensation. The informed consent process or form should contain no words that would absolve an investigator from responsibility in the case of accidental injury, or that would imply that subjects would waive their right to seek compensation for impairment, disability or handicap. Prospective subjects should be informed that they will not need to take legal action to secure the free medical treatment or compensation for injury to which they may be entitled. They should also be told what medical service or organization or individual will provide the medical treatment and what organization will be responsible for providing compensation.

**Obligation of the sponsor with regard to compensation.** Before the research begins, the sponsor, whether a pharmaceutical company or other organization or institution, or a government (where government insurance is not precluded by law), should agree to provide compensation for any physical injury for which subjects are entitled to compensation, or come to an agreement with the investigator concerning the circumstances in which the investigator must rely on his or her own insurance coverage (for example, for negligence or failure of the investigator to follow the protocol, or where government insurance coverage is limited to negligence). In certain circumstances it may be advisable to follow both courses. Sponsors should seek adequate insurance against risks to cover compensation, independent of proof of fault.

**Guideline 20: Strengthening capacity for ethical and scientific review and biomedical research**

Many countries lack the capacity to assess or ensure the scientific quality or ethical acceptability of biomedical research proposed or carried out in their jurisdictions. In externally sponsored collaborative research, sponsors and investigators have an ethical obligation to ensure that biomedical research projects for which they are responsible in such countries contribute effectively to national or local capacity to design and conduct biomedical research, and to provide scientific and ethical review and monitoring of such research. Capacity-building may include, but is not limited to, the following activities:

- establishing and strengthening independent and competent ethical review processes/ committees
- strengthening research capacity
- developing technologies appropriate to health-care and biomedical research
- training of research and health-care staff
- educating the community from which research subjects will be drawn

**Commentary on Guideline 20:** External sponsors and investigators have an ethical obligation to contribute to a host country's sustainable capacity for independent scientific and ethical review and biomedical research. Before undertaking research in a host country with little or no such capacity, external sponsors and investigators should include in the research protocol a plan that specifies the contribution they will make. The amount of capacity building reasonably expected should be proportional to the magnitude of the research project. A brief epidemiological study involving only review of medical records, for example, would entail relatively little, if any, such development, whereas a considerable contribution is to be expected of an external sponsor of, for instance, a large-scale vaccine

field-trial expected to last two or three years. The specific capacity-building objectives should be determined and achieved through dialogue and negotiation between external sponsors and host-country authorities. External sponsors would be expected to employ and, if necessary, train local individuals to function as investigators, research assistants or data managers, for example, and to provide, as necessary, reasonable amounts of financial, educational and other assistance for capacity-building. To avoid conflict of interest and safeguard the independence of review committees, financial assistance should not be provided directly to them; rather, funds should be made available to appropriate authorities in the host-country government or to the host research institution. (See also Guideline 10: Research in populations and communities with limited resources.)

**Guideline 21: Ethical obligation of external sponsors to provide health-care services**

External sponsors are ethically obliged to ensure the availability of:

- health-care services that are essential to the safe conduct of the research;
- treatment for subjects who suffer injury as a consequence of research interventions; and
- services that are a necessary part of the commitment of a sponsor to make a beneficial intervention or product developed as a result of the research reasonably available to the population or community concerned.

**Commentary on Guideline 21:**

Obligations of external sponsors to provide health-care services will vary with the circumstances of particular studies and the needs of host countries. The sponsors' obligations in particular studies should be clarified before the research is begun. The research protocol should specify what health-care services will be made available, during and after the research, to the subjects themselves, to the community from which the subjects are drawn, or to the host country, and for how long. The details of these arrangements should be agreed by the sponsor, officials of the host country, other interested parties, and, when appropriate, the community from which subjects are to be drawn. The agreed arrangements should be specified in the consent process and document. Although sponsors are, in general, not obliged to provide health-care services beyond that which is necessary for the conduct of the research, it is morally praiseworthy to do so. Such services typically include treatment for diseases contracted in the course of the study. It might, for example, be agreed to treat cases of an infectious disease contracted during a trial of a vaccine designed to provide immunity to that disease, or to provide treatment of incidental conditions unrelated to the study. The obligation to ensure that subjects who suffer injury as a consequence of research interventions obtain medical treatment free of charge, and that compensation be provided for death or disability occurring as a consequence of such injury, is the subject of Guideline 19, on the scope and limits of such obligations. When prospective or actual subjects are found to have diseases unrelated to the research, or cannot be enrolled in a study because they do not meet the health criteria, investigators should, as appropriate, advise them to obtain, or refer them for, medical care. In general, also, in the course of a study, sponsors should disclose to the proper health authorities information of public health concern arising from the research. The obligation of the sponsor to make reasonably available for the benefit of the population or community concerned any intervention or product developed, or knowledge generated, as a result of the research is considered in Guideline 10: Research in populations and communities with limited resources.

**Appendix 1**

**Items to be included in a protocol (or associated documents) for biomedical research involving human subjects.**

(Include the items relevant to the study/project in question)

1. Title of the study;
2. A summary of the proposed research in lay/non-technical language;
3. A clear statement of the justification for the study, its significance in development and in meeting the needs of the country/population in which the research is carried out;
4. The investigators' views of the ethical issues and considerations raised by the study and, if appropriate, how it is proposed to deal with them;
5. Summary of all previous studies on the topic, including unpublished studies known to the investigators and sponsors, and information on previously published research on the topic, including the nature, extent and relevance of animal studies and other preclinical and clinical studies;
6. A statement that the principles set out in these Guidelines will be implemented;
7. An account of previous submissions of the protocol for ethical review and their outcome;
8. A brief description of the site(s) where the research is to be conducted, including information about the adequacy of facilities for the safe and appropriate conduct of the research, and relevant demographic and epidemiological information about the country or region concerned;
9. Name and address of the sponsor;
10. Names, addresses, institutional affiliations, qualifications and experience of the principal investigator and other investigators;

11. The objectives of the trial or study, its hypotheses or research questions, its assumptions, and its variables;
12. A detailed description of the design of the trial or study. In the case of controlled clinical trials the description should include, but not be limited to, whether assignment to treatment groups will be randomized (including the method of randomization), and whether the study will be blinded (single blind, double blind), or open;
13. The number of research subjects needed to achieve the study objective, and how this was statistically determined;
14. The criteria for inclusion or exclusion of potential subjects, and justification for the exclusion of any groups on the basis of age, sex, social or economic factors, or for other reasons;
15. The justification for involving as research subjects any persons with limited capacity to consent or members of vulnerable social groups, and a description of special measures to minimize risks and discomfort to such subjects;
16. The process of recruitment, e.g., advertisements, and the steps to be taken to protect privacy and confidentiality during recruitment;
17. Description and explanation of all interventions (the method of treatment administration, including route of administration, dose, dose interval and treatment period for investigational and comparator products used);
18. Plans and justification for withdrawing or withholding standard therapies in the course of the research, including any resulting risks to subjects;
19. Any other treatment that may be given or permitted, or contraindicated, during the study;
20. Clinical and laboratory tests and other tests that are to be carried out;
21. Samples of the standardized case-report forms to be used, the methods of recording therapeutic response (description and evaluation of methods and frequency of measurement), the follow-up procedures, and, if applicable, the measures proposed to determine the extent of compliance of subjects with the treatment;
22. Rules or criteria according to which subjects may be removed from the study or clinical trial, or (in a multi-centre study) a centre may be discontinued, or the study may be terminated;
23. Methods of recording and reporting adverse events or reactions, and provisions for dealing with complications;
24. The known or foreseen risks of adverse reactions, including the risks attached to each proposed intervention and to any drug, vaccine or procedure to be tested;
25. For research carrying more than minimal risk of physical injury, details of plans, including insurance coverage, to provide treatment for such injury, including the funding of treatment, and to provide compensation for research-related disability or death;
26. Provision for continuing access of subjects to the investigational treatment after the study, indicating its modalities, the individual or organization responsible for paying for it, and for how long it will continue;
27. For research on pregnant women, a plan, if appropriate, for monitoring the outcome of the pregnancy with regard to both the health of the woman and the short-term and long-term health of the child.
28. The potential benefits of the research to subjects and to others;
29. The expected benefits of the research to the population, including new knowledge that the study might generate;
30. The means proposed to obtain individual informed consent and the procedure planned to communicate information to prospective subjects, including the name and position of the person responsible for obtaining consent;
31. When a prospective subject is not capable of informed consent, satisfactory assurance that permission will be obtained from a duly authorized person, or, in the case of a child who is sufficiently mature to understand the implications of informed consent but has not reached the legal age of consent, that knowing agreement, or assent, will be obtained, as well as the permission of a parent, or a legal guardian or other duly authorized representative;
32. An account of any economic or other inducements or incentives to prospective subjects to participate, such as offers of cash payments, gifts, or free services or facilities, and of any financial obligations assumed by the subjects, such as payment for medical services;
33. Plans and procedures, and the persons responsible, for communicating to subjects information arising from the study (on harm or benefit, for example), or from other research on the same topic, that could affect subjects' willingness to continue in the study;
34. Plans to inform subjects about the results of the study;
35. The provisions for protecting the confidentiality of personal data, and respecting the privacy of subjects, including the precautions that are in place to prevent disclosure of the results of a subject's genetic tests to immediate family relatives without the consent of the subject;
36. Information about how the code, if any, for the subjects' identity is established, where it will be kept and when, how and by whom it can be broken in the event of an emergency;



37. Any foreseen further uses of personal data or biological materials;
38. A description of the plans for statistical analysis of the study, including plans for interim analyses, if any, and criteria for prematurely terminating the study as a whole if necessary;
39. Plans for monitoring the continuing safety of drugs or other interventions administered for purposes of the study or trial and, if appropriate, the appointment for this purpose of an independent data-monitoring (data and safety monitoring) committee;
40. A list of the references cited in the protocol;
41. The source and amount of funding of the research: the organization that is sponsoring the research and a detailed account of the sponsor's financial commitments to the research institution, the investigators, the research subjects, and, when relevant, the community;
42. The arrangements for dealing with financial or other conflicts of interest that might affect the judgement of investigators or other research personnel: informing the institutional conflict-of-interest committee of such conflicts of interest; the communication by that committee of the pertinent details of the information to the ethical review committee; and the transmission by that committee to the research subjects of the parts of the information that it decides should be passed on to them;
43. The time schedule for completion of the study;
44. For research that is to be carried out in a developing country or community, the contribution that the sponsor will make to capacity-building for scientific and ethical review and for biomedical research in the host country, and an assurance that the capacity-building objectives are in keeping with the values and expectations of the subjects and their communities;
45. Particularly in the case of an industrial sponsor, a contract stipulating who possesses the right to publish the results of the study, and a mandatory obligation to prepare with, and submit to, the principal investigators the draft of the text reporting the results;
46. In the case of a negative outcome, an assurance that the results will be made available, as appropriate, through publication or by reporting to the drug registration authority;
47. Circumstances in which it might be considered inappropriate to publish findings, such as when the findings of an epidemiological, sociological or genetics study may present risks to the interests of a community or population or of a racially or ethnically defined group of people; and
48. A statement that any proven evidence of falsification of data will be dealt with in accordance with the policy of the sponsor to take appropriate action against such unacceptable procedures.

## **Appendix 2**

**WORLD MEDICAL ASSOCIATION DECLARATION OF HELSINKI** [available at:] <[www.wma.net](http://www.wma.net)>

## **Appendix 3**

### **THE PHASES OF CLINICAL TRIALS OF VACCINES AND DRUGS**

#### **Vaccine development**

Phase I refers to the first introduction of a candidate vaccine into a human population for initial determination of its safety and biological effects, including immunogenicity. This phase may include studies of dose and route of administration, and usually involves fewer than 100 volunteers.

Phase II refers to the initial trials examining effectiveness in a limited number of volunteers (usually between 200 and 500); the focus of this phase is immunogenicity.

Phase III trials are intended for a more complete assessment of safety and effectiveness in the prevention of disease, involving a larger number of volunteers in a multicentre adequately controlled study.

#### **Drug development**

Phase I refers to the first introduction of a drug into humans. Normal volunteer subjects are usually studied to determine levels of drugs at which toxicity is observed. Such studies are followed by dose-ranging studies in patients for safety and, in some cases, early evidence of effectiveness.

Phase II investigation consists of controlled clinical trials designed to demonstrate effectiveness and relative safety. Normally, these are performed on a limited number of closely monitored patients.

Phase III trials are performed after a reasonable probability of effectiveness of a drug has been established and are intended to gather additional evidence of effectiveness for specific indications and more precise definition of drug-related adverse effects. This phase includes both controlled and uncontrolled studies.

Phase II and Phase III drug trials should be conducted according to Section C (Paragraphs 28–32) of the Declaration of Helsinki, which refers to medical research combined with medical care.

Phase IV trials are conducted after the national drug registration authority has approved a drug for distribution or marketing. These trials may include research designed to explore a specific pharmacological effect, to establish the incidence of adverse reactions, or to determine the effects of long-term administration of a drug. Phase IV trials may also be designed to evaluate a drug in a population not studied adequately in the pre-marketing phases (such as children or the elderly) or to establish a new clinical indication for a drug. Such research is to be distinguished from

marketing research, sales promotion studies, and routine post-marketing surveillance for adverse drug reactions in that these categories ordinarily need not be reviewed by ethical review committees (see Guideline 2).

Reproduced with permission from the Council for International Organizations of Medical Sciences (CIOMS). Available at [http://www.cioms.ch/frame\\_guidelines\\_sept\\_2002.htm](http://www.cioms.ch/frame_guidelines_sept_2002.htm) Accessed 6 December 2002; formatted to *Textbooks of Military Medicine* style.

# Chapter 20

## NURSING ETHICS AND THE MILITARY

JANET R. SOUTHBY, RN, DNSc<sup>\*</sup>

---

INTRODUCTION

EARLY NURSING ETHICS

ETHICAL STANDARDS FOR NURSES

NURSING AND MEDICINE

ETHICAL DECISION MAKING

RESOLVING ETHICAL DILEMMAS

Clinical Interactions

Continuing Education

Nursing Research

Nursing Administration

CONCLUSION

<sup>\*</sup>Colonel (Retired), Nurse Corps, United States Army; formerly Chief, Department of Nursing, Walter Reed Army Medical Center, Washington, DC, and Chief Nurse, North Atlantic Regional Medical Command, Washington, DC; currently, Associate Director, Interagency Institute for Federal Health Care Executives, School of Public Health and Health Services, The George Washington University Medical Center, Washington, DC



This untitled painting, signed "Ramus '45," suggests the adoration for the US Army Nurse so often expressed by the wounded GIs whose lives they help to save.

Art: Courtesy of US Army Medical Department Museum, Fort Sam Houston, Texas.



## INTRODUCTION

Although the care and comfort of the sick and injured is a critical component of every war, military leaders and the public, in general, have traditionally given little attention to these healthcare professionals. Most of the acknowledgment and gratitude they have received was from those who had the unfortunate occasion to experience the compassionate service provided by nurses during wartime. Almost every veteran injured in battle and cared for by nurses far from home has his story to tell. This was probably never more evident than on Veterans' Day, 1993, in Washington, DC, when the Vietnam Women's Memorial was dedicated. More than 30,000 people turned out for the dedication of the first visible symbol in the nation's capital to honor women's patriotic service. Many attending were veterans, those who had been cared for and those who provided that care, each seeking the other to share a special bond formed years ago in faraway places.

Nurses have often been called the "forgotten veterans" because their role under the unique circumstances of war has not been well understood, even though nursing is an occupation known to everyone. In hostile and unfamiliar surroundings and separated from loved ones, the tradition of military nurses has been to steadfastly continue their practice of caring for others. In this stressful environment, they witness and experience the extremes of human behavior in others and in themselves. Nurses do experience "war," not necessarily in the sense of a combatant, but rather the larger, moral picture of war—its cost measured in its casualties.<sup>1</sup>

The professional strains and moral dilemmas experienced by today's military nurses, for the most

part, are not different from those experienced by their civilian counterparts working in trauma centers or prison health systems. What is unique is that during wartime, a great number of stressful experiences often occur in a compressed period of time, usually away from traditional, personal support systems. Also, the situation of displaced persons, refugees, and those who suffer collateral injuries adds another dimension. Although all female professional nurses have been volunteers in the US military services, the experience may not always have turned out to be what was perceived or expected and the location may not have been one of the individual's choices. Some of the moral dilemmas that have been reported will be shared in this chapter.

The development of military nursing throughout modern history has had intricate associations with the private nursing sector and the status of women in society. As the nursing profession has evolved over time, so has the concept of nursing ethics. Several leaders in the evolution of modern civilian nursing also influenced military nursing as their careers intersected with the Army during wartime. From the time of Nightingale and the Crimean War to current, diverse healthcare settings from hospitals to security and sustainment operations, nurses in the military environment continue to struggle with challenging ethical issues involving their patients and the practice and profession of nursing. This chapter will review the history of early nursing ethics, trend the development of the ethical code for nurses, explore how nursing and medicine view ethical decision making, and discuss the resolution of ethical dilemmas.

## EARLY NURSING ETHICS

During the Revolutionary War, camp followers on both sides of the war were women who cooked, cleaned, washed, and sewed. Those who tended the sick and wounded were known as nurses, although the extent of their previous experience may have been tending to an ailing family member. After all, the word nurse (*nutricia* or nourishing) means a person who is skilled or trained in caring for the sick or infirm.

In 1775, General Horatio Gates reported to General Washington that "the sick suffered much for Want of good female Nurses." In turn, General Washington asked the Congress for "a matron to supervise the nurses, bedding, etc," and for nurses

"to attend the sick and obey the matron's orders." The medical support plan provided one nurse for every 10 patients and "that a matron be allotted to every hundred sick or wounded, who shall take care that the provisions are properly prepared; that the wards, beds, and utensils be kept in neat order, and that the most exact economy be observed in her department." In spite of these references to nursing, it was not recognized as a separate and distinct service.<sup>2</sup>

Later, as Lady Superintendent in Chief of female nurses in the English General Military Hospitals during the Crimean War, Florence Nightingale promoted military nursing when she organized a group

of nurses for war service in Turkey in 1854. She battled to improve sanitary conditions and acceptance of female nurses. She understood medical and military politics and used statistical data, keen writing skills, and good social connections to achieve her purposes. Many of the early ethical issues in nursing arose from the image that nurses were women of dubious reputation and nursing was a task viewed as being neither as lowly as a simple domestic, nor as highly placed as a cook. Overcoming this image of nursing was a great challenge to Florence Nightingale when she started the Nightingale School of Nursing in 1860 at St. Thomas's Hospital, London.

During the same period in the United States, Dorothea L. Dix, known for improvement in the care of the mentally ill, had responded to President Lincoln's call for volunteers to help care for sick and injured soldiers. Appointed Superintendent of the Female Nurses of the Union Army in 1861, she initially set strict criteria for her nurses but, due to the great need, later appointed almost any woman willing to serve. As the war continued, there was no single system for recruiting and preparing nurses; few had actual preparation beyond family experiences. The acceptance of female nurses near the battlefield varied with the intensity of need. They also tended to anger the hierarchy with their letter writing. Having learned that letters were the lifeblood between the injured and their families, Civil War nurses used this woman-to-woman communication link to arouse and maintain pressure for the flow of needed supplies from private and charitable sources when the supply system failed. They wrote about unsafe conditions and, on occasion, unsafe medical practice, taking sanitation and organization into their own hands. The many women, known and unknown, who organized relief agencies and served as nurses changed forever the concept of women's roles. The Civil War is credited as setting the stage for the emergence of women from home to larger societal purpose, the development of professional nursing in the United States, and the inclusion of trained women nurses in military organizations.<sup>3</sup>

During the remainder of the century, it was traditional for ethical issues in nursing to focus on etiquette as the first formal schools of nursing attempted to attract the respectable and educated daughters of families from the middle classes. Morals and manners were emphasized as necessary characteristics for a woman to possess or acquire to be a successful nurse. The extent to which ethical considerations were pursued in the curricula is unclear. Yet, it is

noted that students of the Johns Hopkins School of Nursing were taught ethical issues soon after the opening of the school in 1889.<sup>4</sup>

At the onset of the Spanish-American War, Dr. Anita Newcomb McGee, Vice President of the National Society of the Daughters of the American Revolution, was placed in charge of selecting graduate nurses for the Army. The Army Medical Department reluctantly called for the nursing services of women when unable to enlist enough male medics qualified by previous experience to perform important patient care duties and because of the epidemic prevalence of typhoid fever in Army camps. The record of service of the women nurses who served in this war was a convincing factor in the establishment of a permanent nurse corps (as well as a memorial in Arlington Cemetery; see Figure 20-1). In spite of some reluctance on the part of Surgeon



**Fig. 20-1.** The Nurses Memorial. This marble statue honoring military nurses is located on a knoll in Section 21 of Arlington National Cemetery where hundreds of nurses are buried. The sculpture, by Frances Rich, was originally dedicated on 8 November 1938 to commemorate Army and Navy nurses. It was rededicated on 20 November 1970 to include Air Force nurses as well as all nurses who had served since 1938.

General George M. Steinberg and some senior medical officers, the Nurse Corps (female) became a permanent corps of the Army Medical Department on 2 February 1901.<sup>2</sup>

Following this, there was great interest in the Medical Department of the Navy to formalize a nurse corps. Nursing in the Navy was originally carried out by members of the ship's crew who were untrained and held no special status until establishment of the Hospital Corps in 1898. The Nurse Corps (female) of the US Navy, established by law on 13 May 1908, met with some resistance among military doctors. Navy nurses charted new territory, however, and their first superintendent, Esther V. Hasson, predicted in 1909:

One of the principle [*sic*] duties of the woman nurse in the Navy will be the bedside instruction of the hospital apprentices in the practical essentials of nursing....When treatment, baths, or medication come due it is not expected or desired that she will always give these herself, but it will be her duty to see that the apprentices carry out the orders promptly and intelligently. This arrangement does not, however, absolve the nurse...from doing the actual nursing work whenever necessary...she is always expected to keep uppermost in her mind... the improvement of the apprentices to whom the bulk of the nursing of the Navy afloat will always fall, for it is not the intention of the Surgeon General to station women nurses on any but hospital ships.<sup>5</sup>

In 1917, Annie W. Goodrich, president of the American Nurses Association, was appointed under contract as Chief Inspector Nurse of the Army. Her unfavorable report on utilizing nurses' aides in Army hospitals called for more trained nurses. She subsequently became Dean of the first Army School of Nursing, authorized in 1918 by the Secretary of War. Sometime in the 1920s, the second Dean and first Superintendent of the Army Nurse Corps, Major Julia C. Stimson, began to teach ethics.

Major Stimson's notes reveal that she held the

ethics course as an open forum with the students, assigning four problems each week for discussion. One section of her notes listed 22 discussion points ranging from simplistic to philosophical. Examples included:

- To what extent is dress involved in the question of nursing ethics? Trace the historical development of the uniform and the current observance in regard to the uniform in public places, wearing jewelry, etc.
- Discuss the following questions from the standpoint of nursing ethics. Smoking, bobbed hair, use of cosmetics, drinking, rule of seniority, class distinction, tipping, and presents.
- What is the main contribution of nursing ethics made by the following: Hippocrates, St. Paul, Jerome, St. Francis, Elizabeth of Hungary, Luther, Edith Cavell, Deaconesses, Monasteries, St. Vincent de Paul, John Howard, The Fleidners, Charles Dickens, Florence Nightingale, Dorothea Dix, Knights Hospitallers, Secular Orders.<sup>6</sup>

These topics were typical of ethical discussions at the time. Major Stimson also included the definitions of ethics and nursing ethics attributed to Isabel Hampton Robb. Mrs. Robb's text, *Nursing Ethics for Hospital and Private Use*, addressed posture, table manners, and appropriate wardrobe for a nurse, but also covered health, education, and culture as necessary qualifications for nursing. An outstanding nurse of the day, she had been instrumental in initiating two national nursing associations and an official journal for nurses. Many considered her book to be a great step toward professionalism in nursing. Nursing leaders acknowledged that, although women could be trained to be nurses, character could not be changed. Character was important for members of the emerging profession. Nursing had begun to move from ethical issues of personal morality to professional ethics.

## ETHICAL STANDARDS FOR NURSES

Meanwhile, the first generally accepted written code for nursing in the United States had been formulated in 1893. A committee under the leadership of Lystra E. Gretter, principal of the Forrand Training School for Nurses in Detroit, developed the pledge to serve as guide for the ethical behavior of nurses until a formal code of ethics was completed. It was patterned after medicine's Hippocratic Oath

and named after Florence Nightingale, whom Gretter felt embodied the highest ideals of nursing. The Nightingale Pledge, still frequently administered at many nursing school graduations today, reads as follows:

I solemnly pledge myself before God and in the presence of this assembly to pass my life in purity



and to practice my profession faithfully.

I will abstain from whatever is deleterious and mischievous, and will not take or knowingly administer any harmful drug.

I will do all in my power to maintain and elevate the standard of my profession, and will hold in confidence all personal matters committed to my keeping, and all family affairs coming to my knowledge in the practice of my profession.

With loyalty will I endeavor to aid the physician in his work, and devote myself to the welfare of those committed to my care.<sup>7</sup>

The Nurses' Associated Alumnae of the United States and Canada, forerunner of the American Nurses' Association (ANA), sought to establish and maintain a code of ethics for the purpose of promoting ethical standards in all the relations of the nursing profession as early as 1896. Nurses wanted something concrete they could use as a basis for professional conduct and in teaching ethics. The legacy of these early efforts is the "Code of Ethics for Nurses With Interpretive Statements."<sup>8-10</sup>

Since its inception, nursing's code of ethics has undergone periodic revisions in order to remain relevant. Changes in the code were influenced by the growth of nursing toward professionalism and by changes in nursing, society, and healthcare. Yet, the ethical norms of the profession, the moral duties, and the values of the profession have remained constant. First, "A Suggested Code," presented in 1926, reflected values of "Christian morality" and attitudes toward nursing at that time. Nurses were viewed as obedient, submissive to rules, adept in social etiquette, and loyal to the physician. Nursing was considered to be an emerging profession meeting a basic human need. Nursing and medicine were viewed as distinct but complementary disciplines characterized by mutual respect. The 1926 code was replaced by "A Tentative Code" in 1940. The intent was to recognize nursing as a profession. It cited the responsibility of the nurse in relationships to the patient, other nurses, the employer, the public and others, as well as responsibility to oneself. Guidance was provided for specific situations rather than a broad framework that could be applied in a variety of situations. The concept of research as a means of improving care was introduced for the first time.

Ten years passed before the code was altered again. Undoubtedly the entry of the United States into World War II contributed to the hiatus in fur-

ther development. The country was faced with a critical shortage of registered nurses nationwide. To help meet nursing personnel requirements, the United States Cadet Nurse Corps was established under the administration of the United States Public Health Service. This measure set the precedent that schools of nursing were recognized as essential agencies in the protection of the nation's health. During this period, the Army Nurse Corps began specialty training in anesthesiology, operating room procedures, and public health nursing. In 1942, Navy nurses were given a status called "relative rank," which had been afforded to Army nurses in 1920. The Army-Navy Nurse Act of 1947 provided permanent commissioned officer status for registered nurses in the armed services, and Public Law 36, 80th Congress, established the Army Nurse Corps (ANC) in the Medical Department of the Regular Army. On 1 July 1949, the US Air Force Nurse Corps was established. A total of 1,999 Army nurses transferred to the US Air Force, forming the nucleus of its Nurse Corps. The status of commissioned officers assisted military nursing in its efforts to change outmoded ideas and pave the way for the nursing profession.<sup>2(p23),11</sup>

The revised "Code for Professional Nurses," unanimously accepted by the ANA in 1950, consisted of a brief preamble and 17 succinct, enumerated provisions. The word "professional" was used to describe the nurse and the statement about loyalty to the physician was omitted. The prevention of illness and promotion of health by teaching and example were included as expectations of nursing.

Then, in 1953, the International Council of Nurses (ICN) adopted an international code of ethics for nurses to serve as the standard for nurses worldwide. The 14 statements cited the responsibility of nurses to conserve life, alleviate suffering, and promote health. Nurses were expected to refuse to participate in unethical procedures, report unethical conduct of associates but only to the proper authority, and to adhere to standards of personal ethics in their professional and private lives. Although minor revisions were made at various times, a new version was not released until 27 years later, responding to the realities of nursing and healthcare in a changing society.<sup>12</sup>

Further amendments to the ANA code, in 1956 and 1960, addressed nurse participation in advertising professional services and in setting terms and conditions of employment. During this decade, attention shifted from concern for content of the code to concern about its enforcement in the practice setting. It was also during this time that the armed



services commissioned male registered nurses. Men, as medics, were a tradition in military medicine. In 1951, the Department of Defense (DoD) established a definitive policy (DoD Directive 750.04-1, renumbered 1125.1) on the utilization of registered nurses in the military services and instructed the military medical services to establish programs to train and utilize enlisted personnel as practical nurses and in other paraprofessional nursing roles providing patient care.<sup>2(pp25-28)</sup> The same year, Congresswoman Frances P. Bolton introduced HR 911 in an attempt to provide for the appointment of men as nurses in the US Army, US Navy, and US Air Force. Finally in 1955, Public Law 294, 84th Congress, again introduced by Congresswoman Bolton, authorized commissions for male nurses in the US Army Reserve for assignment to the ANC Branch. The first man to receive a commission in the ANC was a nurse anesthetist in the fall of 1955. Men were eligible for the Army Student Nurse Program established the next year to help solve the acute shortage of nurses in the Army. Finally, in 1962 men were authorized to apply for the Registered Nurse Student Program that had been established in 1953 to recruit registered nurses for the ANC. Thereafter, educational opportunities for men and women were equal.<sup>2</sup>

The social upheaval of the 1960s, along with major improvements in the capabilities of healthcare delivery, forced reevaluation of what nurses and nursing stood for in society. Nurse practitioners appeared on the healthcare scene in 1965 when nurse Loretta Ford and physician Henry Silver at the University of Colorado educated nurses to provide primary care for children and their families. The nurse practitioner movement, an approach to fill the physician gap to provide primary care to children and those unable to pay, was enhanced by social agitation to fund educational programs and gained energy from the women's movement in this attempt to broaden nursing practice. Although initially supportive of this professional nursing development, organized medicine has since sought to constrain the scope of practice for nurse practitioners.<sup>13</sup>

The substantive revision in 1968, the "Code for Nurses," dropped the word "professional" from the title to indicate that the code applied to both professional and technical nurses. For the first time, references to personal ethics were omitted. This was a significant departure from the early focus of nursing educators and administrators on questions of the moral purity of the probationer, trainee, and graduate.<sup>9</sup> Instead of referring to the physician, this version referred to members of other health professions. The 1968 Code provided nurses an ethical

framework within which to practice their profession by addressing their responsibility to the patient, society, and the profession, and by participating in research.<sup>14</sup>

During this period, several thousand nurses who served in Vietnam began to return to the private sector. Although politicians, historians, and others have said that the Vietnam conflict was different from other American wars, a review of the literature reveals that the fundamental experience of wartime for nurses was not much different. The youth of the patients, the severity of injury, the lack of feedback on patients' progress after transfer, the patient deaths that could not be prevented, the deaths of friends, working with enemy patients, and dealing with the triage situation are frequently cited as stressors. Although caring for young wounded casualties was reported to be stressful, it was also considered to be gratifying. Like nurses who served in World War I, World War II, or the Korean War, these nurses felt a common pride in their accomplishments and the wartime role of the professional, although these feelings may have been tempered by the social and political circumstances. Returning to stateside nursing often required a considerable adjustment, from the clinical responsibility and collaborative teamwork practiced in the war, to the more restrictive roles still found in many settings. The profession was just beginning to achieve autonomy. The structured healthcare environment was very different from Vietnam. Some nurses became angry and disillusioned about nursing practice, some reverted to traditional roles, and others took up the challenge to promote the status of the nursing profession.<sup>15,16</sup>

Further changes in nursing and its social context led to an update of the ethical code in 1976. The "Code for Nurses With Interpretive Statements" placed new emphasis on the responsibility of the patient to participate in his own care (self-determination), the notion of nursing autonomy, and the nurse's role as client advocate. The word "client" rather than "patient" was used in an attempt to be less restrictive and to imply a more egalitarian relationship. However, "client" implies that the recipient of care can make a choice of care provider. Yet, the bulk of nursing practice does not include that type of choice on the part of recipients and may connote unintended change in the nurse-patient relationship.<sup>17</sup> The ANA also formed a Committee on Ethics that later published "Guidelines for Implementing the Code for Nurses."

The 1985 revision of the Code for Nurses retained all 11 provisions unchanged from 1976. The pre-

amble, however, included a list of fundamental principles of ethics and the interpretations more closely reflected these principles and placed greater emphasis on patients' rights. For example, a reference to healthcare as a right of all citizens was changed to reflect the availability and accessibility of high-quality health services to all people. The Code for Nurses reflected nursing's changing relationship to society and the societal concerns of the times.<sup>18</sup> During the mid-1990s, both organized nursing and the media promoted "advance practice nurses" as one solution to a serious component of America's healthcare crisis—the need for greater access to routine primary and preventive care. This group of nurse practitioners, nurse midwives, certified registered nurse anesthetists, and clinical nurse specialists represented 100,000 nurses who generally had 18 months to three years of graduate education beyond the baccalaureate, many with a master's degree.

Countless studies and analyses documented the quality of care delivered by these direct care providers. Yet, every advance in their reimbursement for services and broader prescriptive authority in-

involved protracted negotiation within the healthcare community. Professional challenges for these providers must continue to be addressed within the framework that nurses value the distinctive contribution of individuals or groups and collaborate to meet the shared goal of providing quality health services. Also, in the 1990s both the ANA and the ICN initiated comprehensive reviews of their codes. Each organization wanted to reflect current ethical standards for nurses—to make explicit the primary goals, values and obligations of the profession. The revised "ICN Code of Ethics for Nurses," adopted in 2000, begins with a very powerful preamble:

Nurses have four fundamental responsibilities: to promote health, to prevent illness, to restore health and to alleviate suffering. The need for nursing is universal. Inherent in nursing is respect for human rights, including the right to life, to dignity and to be treated with respect. Nursing care is unrestricted by considerations of age, color, creed, culture, disability or illness, gender, nationality, politics, race or social status. Nurses render health services to the individual, the family and the community and coordinate their services with those of related groups.<sup>18(p2)</sup>

#### EXHIBIT 20-1

##### THE 2001 "CODE OF ETHICS FOR NURSES WITH INTERPRETIVE STATEMENTS"

- The nurse, in all professional relationships, practices with compassion and respect for the inherent dignity, worth, and uniqueness of every individual, unrestricted by considerations of social or economic status, personal attributes, or the nature of health problems.
- The nurse's primary commitment is to the patient, whether an individual, family, group, or community.
- The nurse promotes, advocates for, and strives to protect the health, safety, and rights of the patient.
- The nurse is responsible and accountable for individual nursing practice and determines the appropriate delegation of tasks consistent with the nurse's obligation to provide optimum patient care.
- The nurse owes the same duties to self as to others, including the responsibility to preserve integrity and safety, to maintain competence, and to continue personal and professional growth.
- The nurse participates in establishing, maintaining, and improving health care environments and conditions of employment conducive to the provision of quality health care and consistent with the values of the profession through individual and collective action.
- The nurse participates in the advancement of the profession through contributions to practice, education, administration, and knowledge development.
- The nurse collaborates with other health professionals and the public in promoting community, national, and international efforts to meet health needs.
- The profession of nursing, as represented by associations and their members, is responsible for articulating nursing values, for maintaining the integrity of the profession and its practice, and for shaping social policy.

Reproduced with permission from *Code of Ethics for Nurses With Interpretive Statements* (ISBN 1-55810-176-4). Washington, DC: American Nurses Publishing; 2001: 4.

The ICN Code comprises four elements: (1) nurses and people, (2) nurses and practice, (3) nurses and co-workers, and (4) nurses and the professions. These elements provide a framework for standards of ethical conduct.

The “Code of Ethics for Nurses with Interpretive Statements” adopted by the ANA in 2001 complements the ICN document. It provides a succinct statement of the ethical obligations and duties of every nurse, sets the profession’s nonnegotiable ethical standard, and expresses nursing’s own understanding of its commitment to society.<sup>19(p5)</sup> The Code comprises nine provisions: three describe fundamental values and commitments of the individual nurse, three address expectations for optimal performance and loyalty to self and others, and three address responsibilities to the profession and community at large (Exhibit 20-1). The interpretative statements for each provision provide greater specificity for practice within the contemporary context of nursing. Again, the word “patient” is used to refer to recipients of nursing care, although it is acknowledged that the Code applies to nurses and

recipients of their services in all roles and settings.

The “Code of Ethics for Nurses” informs both the nurse and society of the profession’s expectations and requirements in ethical matters. It provides a framework within which nurses can make ethical decisions and discharge their responsibilities to the public, other members of the healthcare team, and the profession. These decisions are based on consideration of consequences and of universal moral principles, both of which prescribe and justify nursing actions. Although the core value is respect for persons, there is deep and abiding concern for fundamental ethical principles including: autonomy (self-determination), nonmaleficence (avoiding harm), beneficence (doing good or positively benefiting another), veracity (truth telling), fidelity (keeping promises), confidentiality (respecting privileged information), and justice (treating people fairly). In summary, the nurse’s daily practice is charged with compromise and compassion, along with patient advocacy—feelings that greatly influence and modify the work ethics of the nursing profession. Table 20-1 provides a summary of the evolution of the codes for nursing.

## NURSING AND MEDICINE

The emphasis on nursing as a profession was driven, in part, by the desire to shed the generally inferior social and economic status assigned to nurses in the medical hierarchy. By becoming professionals, nurses would enter the middle class and so achieve a social parity with other middle-class professionals, including physicians.<sup>20</sup>

The authority for nursing, as for other professions, is based on a social contract between society and the profession. Society grants the professions authority over their essential activities and permits considerable autonomy in the conduct of their affairs. The professions, in turn, are expected to act responsibly, ever mindful of the public trust, and to self-regulate to assure quality performance. The social contract for nursing has been made specific, over the years, through multiple actions. These actions include: (a) developing a code of ethics, (b) standardizing nursing curricula, (c) establishing educational requirements for entry into professional practice, (d) procuring registration for graduates of nursing programs, (e) establishing standards of practice, (f) developing a body of knowledge derived from nursing research, (g) developing certification processes for the profession, and (h) other works directed toward making more specific nursing’s accountability to society.<sup>20</sup> Nurses are ethically and legally accountable for actions taken in

the course of nursing practice as well as for actions delegated by the nurse to others assisting in the delivery of nursing care. Individual moral responsibility requires a willingness to act on one’s moral beliefs and to accept accountability for one’s actions.

Traditional ethical questions in healthcare involving issues such as euthanasia, abortion, experimentation, rationing, truth telling, and so forth, appear to be the same for all healthcare professionals. Other underlying principles or values for patient care are also shared. These include: (a) acting in the best interest of the patient, (b) protecting patient confidentiality and dignity, (c) obtaining informed consent for at-risk procedures, (d) obtaining consultations when believed necessary, and (e) respecting the scientific method. Acting in the best interest of the patient is an important component of the physician–patient covenant and the relationship of other healthcare professionals to the patient (including but not limited to the nurse). This is important due to the vulnerability and anxiety often felt by the patient, an inability to care for his health at this particular time, and potentially limited knowledge to determine whether the recommended course of treatment is indeed most beneficial.

“Nursing” is defined as the diagnosis and treatment of the human responses to actual or potential health problems. It is the human response that re-

**TABLE 20-1**  
**SUCCESSIVE REVISIONS OF THE CODE OF ETHICS FOR NURSES**

DATE/TITLE	REFLECTION OF CONTENT	RATIONALE FOR CHANGES
<b>1893</b> <b>Florence Nightingale Pledge</b>	First generally accepted, but unofficial, code of ethics.	Response to the felt need of many nurses to have their own pledge or oath.
<b>1926</b> <b>A Suggested Code</b>	<p>The nurse is primarily a citizen and public servant; obedient, trustworthy, loyal, and adept in social etiquette.</p> <p>Criteria for professional status includes registration in one state.</p> <p>Nursing responsibility includes safeguarding the health and property of patients.</p> <p>Medicine and nursing are distinct but complementary entities; however, nursing will not initiate treatment except in emergency.</p>	<p>First ANA attempt to adopt official code of ethics.</p> <p>Reflects nursing as meeting a basic human need and emerging as a profession.</p>
<b>1940</b> <b>A Tentative Code</b>	<p>The nurse is responsible to her profession (shifted emphasis away from citizen and servant).</p> <p>Further enumeration of professional criteria.</p> <p>Loyalty to the physician demands that the nurse conscientiously follows his instruction.</p> <p>Emphasizes disease prevention and health promotion, stressing the nurse's health-teaching role.</p> <p>Introduces research as a means for improving nursing care.</p>	<p>Declares nursing a profession.</p> <p>Expresses overt concern for the status and public recognition of nursing as a profession.</p>
<b>1950</b> <b>Code for Professional Nurses</b>	<p>Incorporates many elements of professional relationships within the Code's provisions.</p> <p>Omits the statement about loyalty to the physician.</p> <p>Softens the statement about treatment by using the term "medical treatment."</p>	<p>First national code of nursing ethics for any country.</p> <p>Uses "professional" in the title to emphasize nursing as a profession.</p> <p>Begins to identify patient care functions (nursing treatments) within its purview.</p> <p>Addresses questions and problems regarding nurses and advertising.</p>
<b>1953</b> <b>International Code of Nursing Ethics</b>	Provides a prescriptive list of acceptable standards for the nursing profession.	Attempts to define a code of ethics applicable to nursing worldwide.
<b>1956</b> <b>Code for Professional Nurses, Amended</b>	<p>Nurses may disseminate scientific findings without intention to endorse or promote commercial products or services used in studies.</p> <p>Nurses or groups of nurses may advertise professional services in conformity with the standards of the nursing profession.</p>	Growing numbers of nurse researchers and authors seek to advertise their own publications and to present research findings that may reference commercial products.

(Table 20-1 continues)



Table 20-1 *continued*

<b>1960</b>		
<b>Code for Professional Nurses, Revised</b>	<p>Membership and participation in the professional organizations and participation in defining and upholding standards of practice and education is expected.</p> <p>References the dependent and independent functions of nursing.</p> <p>Allows active participation in setting terms of employment.</p>	<p>Attention shifts from concern for content to concern about enforcing the code in the practice setting.</p> <p>The association of the word “plank” with political meaning is intentional when referring to the description of each statement.</p>
<b>1968</b>		
<b>Code for Nurses</b>	<p>Deletes the term “professional.”</p> <p>Deletes all statements about physicians.</p> <p>Deletes all references to “personal ethics.”</p> <p>Addresses the nurse’s responsibility to the patient, society, and the profession.</p> <p>Includes nurse participation in research.</p>	<p>Applies to all registered nurses, graduates of hospital schools, technical colleges, and universities in response to controversy over the definition of technical and professional nurse.</p> <p>The personal sphere is no longer deemed within the purview of professional scrutiny.</p> <p>Reflects the social upheaval of the 1960s and major innovations in healthcare delivery.</p>
<b>1976</b>		
<b>Code for Nurses With Interpretive Statements</b>	<p>Deletes sexist language and refers to “client” rather than “patient.”</p> <p>Interpretive statements emphasize self-determination of the client and the nurse’s role as client advocate.</p> <p>Notes the obligation to contribute to the profession’s development noted, including research.</p>	<p>Uses nonsexist terminology and the word “client” to reflect nursing’s attempt to be more inclusive.</p> <p>Response to sensitivity regarding patient rights, informed consent, and shared decision making.</p> <p>Reference to nursing autonomy and nurse-as-advocate reflects respect for the autonomy of the patient and the nurse.</p>
<b>1985</b>		
<b>Code for Nurses With Interpretive Statements, Revised</b>	<p>Includes fundamental principles of ethics.</p> <p>Updates interpretations, referring to “people” instead of “citizen,” for example.</p>	<p>The ethical principles are reflected in the content of the interpretative statements.</p> <p>Places greater emphasis on inclusion, eligibility, and patient rights.</p>
<b>2000</b>		
<b>The ICN Code of Ethics for Nurses</b>	<p>Respect for human rights is inherent in nursing.</p>	<p>Responds to the realities of nursing and healthcare in a changing society. Guide for action based on social values and needs. Supports refusal of nurses to participate in activities that conflict with caring and healing.</p>
<b>2001</b>		
<b>Code of Ethics for Nurses With Interpretive Statements</b>	<p>There are 9 provisions instead of 11. The word “patient” is used again and “practice” is used to refer to the actions of the nurse in all roles and settings.</p>	<p>The provisions are more generalized in content and the accompanying interpretive statements reflect the contemporary context of nursing.</p>

mains the defining characteristic of nursing that distinguishes it from medicine and the other health professions. Nursing views the patient as a holistic being. The goal of nursing is identification of human needs and actions appropriate in response to

those needs. When engaged in the process of making ethical choices in the clinical judgment process, nurses tend to focus their cost-benefit analyses around the impact of patients’ problems on quality of life, emotional and physical suffering, and de-

gree of human function based on respect for persons.<sup>21</sup> For example, while taking a nursing history or providing physical care for a patient, the nurse will pick up cues on how the individual interacts within his personal, family, and community systems. This information is often helpful in assisting the individual to cope with, or adjust to, the specific health need that initiated their interaction. Nurses frequently serve as an intermediary between patient and physician, encouraging the patient to ask questions he wants answered, and interpreting, explaining, or reaffirming information provided by the physician. The nurses' psychology tends toward an unconditional love for patients under their care, which also affects the daily ethical behavior of nurses.

Medicine is described as the science and art of preventing, alleviating, and curing disease. By extension, any issue or problem deriving from that generic body of knowledge and any application of it belongs to the general category of medical concern.<sup>22</sup> Physicians typically evaluate and diagnose the presenting problem, prescribe the necessary interventions, and arrange follow-up as needed. They tend to focus their cost-benefit analyses around what is viewed as their primary duty to control, diminish, or eradicate the disease and its effect.<sup>21</sup> Physicians' concerns related to quality of life (particularly when considering withdrawing life-sustaining treatment for terminally ill patients), economic factors, and length of stay reflect the profession's increasing concern about the cost of care and the proper use of resources.<sup>23</sup> Physicians have not historically become as involved in patients' psychosocial systems and responses as do nurses. A dramatic example, as told by a colleague, illustrates this difference:

A surgical team from a highly developed country was working in a foreign nation where the motor scooter is a primary means of personal transportation. A below-knee-amputation was performed on a young wife wounded by an antipersonnel land mine. Due to ensuing severe toxicity, the surgeon recommended a hip disarticulation to assure saving the patient's life. The nurse argued for an above-knee-amputation as an intermediate step so that riding on a scooter would still be possible. A hip disarticulation was performed and the patient was prepared for discharge. When her husband arrived to pick her up, she was unable to balance on the back of his scooter. He drove away without her and the patient died, "heartbroken," two weeks later.<sup>24</sup>

This example illustrates that the practice of medicine tends toward the disease-fighting model, concentrating on the application of research and cure.

The healthcare system—from medical education to reimbursement—calls physician attention to sick cells, organs, tissues, and limbs rather than relating to the patient. By contrast, nursing tends toward the psychological and social meaning of illness, concentrating on patient advocacy and care. Although it is absurd to say that nurses care while physicians cure (because in reality physicians try to help their patients cope with the experience of illness, and, of course, nurses help patients to be cured), there is nonetheless a distinct difference between nursing and medicine.

Theories on differences in behavior date back to the ancient Greeks, as shown in the *Corpus Hippocraticum*, regarding the doctor-patient relationship. The formulation of their bond was established on the basis of love of nature through a specific man, the patient. Because of his disease, a sick man is a good friend to a doctor. In the case of the physician, it is assumed where there is love of man there is love of the art. The goal of this friendship was human perfection through knowledge—the pursuit of perfection. In the case of nurses, woman healers, or midwives, however, it was the recognition of what was necessary and a relationship that prevailed through concrete affection toward specific individuals. This distinction dates back to antiquity and is expressed today in the daily attitude of physicians and nurses. This creates a difference in perceptions and judgment, behavior, and ethical reasoning. The physician has intellectual honesty, the nurse emotional truthfulness; that is why both professions are complementary and needed by each other.<sup>25</sup> The challenge is to get each profession to recognize their mutuality and need for collaboration in providing their respective services in the best interest of the patient.

Ethical dilemmas arise when miscommunication and controversy occur among patient, family, physician, nurse, and other healthcare professionals. When discussion and mutual decision making occur among those involved, there is less probability of ethical controversy becoming an issue. In spite of many independent functions, no one on the healthcare team functions independently of others in providing total healthcare to those being served.

Although there is no special brand of ethical reasoning or moral intuition "for nurses only," the continuing clarification of nursing's identity as a profession has significantly increased each nurse's ethical accountability in the realm of nursing practice. The developments in nursing research and knowledge in recent years have stimulated thoughtful reflection and debate on the philosophical basis of ethical judgment in the nursing profession. By virtue

of their pervasive presence in healthcare settings and the continuity of their care to individuals, families, and community groups, nurses may be more concerned with some ethical issues than with others. The goal of nursing actions is directed toward supporting and enhancing patient self-determination, which is

basic to respect for persons, and is demonstrated through advocacy. Multiple biopsychosocial factors must be considered in deciding the plan of care. In reality, this decision, certainly in most cultures, would involve multiple discussions with the patient and family and among members of the healthcare team.

## ETHICAL DECISION MAKING

A review of the literature does not substantiate a significant difference in the decision-making processes nurses and physicians use in solving ethical problems. The real difference may be how each views the patient or client from a combination of his or her personal and professional perspectives. The trend is not to adhere to a particular ethical theory because this approach tends to embody only one point of view, may lead to an erroneous stereotypic solution, and is most likely impractical. The discipline of ethics has shifted from a focus on rights-based universal principles to a concern with how individual stories are embedded within particular communities. Today, most healthcare professionals employ a framework of ethical principles, rules, and judgments rather than whole ethical theories in analyzing ethical dilemmas. Although this approach considers the crucial principles, the issues that are summarized by the ethics principles have prominence along with the context of the dilemma and the preferences for action expressed by those involved. Strong principled reasons must underpin the duty, obligation, or point of view for an ethical dilemma to exist. Ethical analysis proceeds as clear reasons are given, principles enunciated, and outcomes considered. The ethical analysis of a dilemma consists of moral reasoning or a system of justification that offers a rationale for decision making and action.<sup>26(p41)</sup>

Nurses in their moral reasoning, according to Garritson,<sup>27</sup> apply the principle of beneficence more frequently than the principles of autonomy and justice, and the beneficence/autonomy balance in their moral reasoning is parallel to the care/justice tension Gilligan<sup>28</sup> described. Cooper<sup>29</sup> found that nurses relied on both a principle-oriented framework (self-determination and nursing obligation) and a moral response of care involving attention to the details of patients' experiences. Peter and Gallop<sup>30</sup> also found that nursing students use care considerations more than justice considerations, but their moral orientation could best be described as mixed. When nursing students were compared with medical students, the differences seemed to relate to gender, not profession; that is, women were more likely than men to use care considerations in their

moral reasoning. Both genders and both nursing and medical students use a mixture of care and justice considerations.<sup>30</sup>

Conscious decision making may be minimized by healthcare professionals who hold well-defined value systems used in value ranking and tested against standards of personal conscience, professional codes of ethics, and legal liability potential. Grundstein-Amando<sup>31</sup> noted that each carries his or her own unique subjective views based on personal experiences that ultimately affect the final course of action. Nurses are typically motivated in their ethical behavior by the value of caring that encompasses responsiveness and sensitivity to the patient's wishes. Nurses listen and try to understand the patient. They will seek vivid indications of the patient's feelings, intentions, and interests, gaining knowledge through personal touch and concrete interaction with the patient. They will attempt to maintain and sustain a relationship that reflects the patient's own specific terms and contexts, not necessarily invoking any rules of justice and equality. They take into consideration love, compassion, and tenderness, which give value to human needs and human weaknesses.

In contrast, physicians tend to value patients' rights and the scientific approach that implies a major concern with disease and its cure. Physicians will talk with the patient and will try to understand the patient's broad perspectives and motivating forces attempting to establish a relationship best described as an interaction between two separate individuals who aim to resolve together an ethical problem. The information that generates the knowledge held by the physician may be considered impersonal and universal, based on established ideals of medical practice and patient rights. In summary, these two groups view the patient's best interests from different perspectives.<sup>31</sup>

The following example shows how the nurse arrived at a moral perspective that seemed to differ from that of the patient and physicians, based on subjective knowledge of the patient and objective knowledge of the course of his illness and long-term care needs. The patient, an 84-year-old retired infantry colonel, widowed and living alone, was transferred to a medical unit following a lengthy

stay in the intensive care unit. Although alert and oriented, he was very frail. The nurse got to know him well as he fought to regain independence, insisting everything be done to maximize his recovery, and resisting any discussion about the possible need for transfer to a nursing home in the near future. As his recovery stalled, it became obvious to the nurse that nursing home care would be needed and that this was unacceptable to the colonel. She approached the attending physician about reviewing resuscitation status with the patient, but he decisively deferred to the patient's previous request that everything be done to keep him alive. During the fourth week, the patient developed a severe infection and became gravely ill. The resident physicians on duty prescribed aggressive resuscitation with intravenous fluids and dopamine, followed by nasotracheal suctioning and urinary catheterization. The thought of performing cardiopulmonary resuscitation and intubating this patient was disturbing to the nurse as she did not think the patient wanted to be kept alive with machines and medications. After the initial crisis, she discussed her concerns with the residents, who responded that they wanted to hold off on the Do-Not-Resuscitate issue at present. Fearing time was running out, she again approached the attending physician. Together, at the bedside, they reviewed the situation and treatment options with the patient. The patient requested resuscitation short of ventilation. This request was honored and aggressive treatment con-

tinued; the patient died of respiratory arrest 36 hours later. Although in this situation the resident physicians were clinically correct in responding to the patient's initial request, the nurse believed that her knowledge of the patient and his course of illness called for reassessing and reaffirming his wishes. Therefore, she contacted the attending physician and obtained an acceptable outcome.<sup>32</sup>

It often becomes necessary to strike an acceptable balance between the emphasis on autonomy and one's commitment to beneficence and nonmaleficence depending on the cultural context, specific situation, and the patient and healthcare professionals involved. It was not all that long ago that patients in our culture were often not told of a terminal diagnosis. The commitment to autonomy reflects a change in our ethical standards and healthcare expectations. Even now, when patients overwhelmed with information find themselves incapable of making a treatment choice or find the choices unsatisfactory, concern is expressed whether promoting autonomy may result in harm to the patient. In some cultures, healthcare professionals routinely do not disclose the diagnosis and prognosis to the patient in situations of terminal illness. Instead, the family is informed so they can ensure a social context of comfort for the patient. In this situation, healthcare professionals intend to protect the patients by relieving them of the burden of decision making, allowing them to feel secure and to gather their own resources for coping with their illness.

## RESOLVING ETHICAL DILEMMAS

### Clinical Interactions

Clinical ethics for nurses in the military versus those in the private sector, and for nurses in one of the military services versus another, do not really differ. Although it is true that military nurses may not always serve in locations of their choice, and the traditional practice settings of land, sea, or air, particularly during armed conflict, may be different for nursing in the Army, Navy, and Air Force, basic ethical decision making is not affected.

The overlay of wartime nursing does, however, add professional strain and certain moral dilemmas. Nurses are routinely exposed to the casualties of war. Casualties include their comrades, prisoners, detainees, and injured civilians (indigenous and displaced persons and refugees). Among the latter, women, children, and older persons are especially vulnerable. These nurses are confronted with great numbers of patients, many to survive with high

degrees of long-term disability, and some unavoidable deaths, over a prolonged period of time. Military nurses began to deal with triage and rapid evacuation, as we know it today, during World War II. These systems, improved during the Korean and Vietnam conflicts, have served as models for peacetime mass casualty care and trauma centers.

Vietnam nurse veterans reported several experiences that caused the most stress. They included: (a) treating patients who in many cases were younger than they, (b) encountering wounds more severe than they had previously seen, (c) dealing with patients who often put concerns about their buddies ahead of themselves, (d) evacuating a patient and losing touch with his case, (e) accepting a system of treatment—triage—that may have been based on expediency but violated every creed of accepted nursing practice (treating the less injured first), (f) and the deaths of those counted as friends. They also recounted being troubled by these dilem-



mas—sending recovered patients back into the field where they might be wounded again or killed (although the mission was to keep the combat units at fighting strength)—and working with physicians, nurses, and enlisted men who were prejudiced against the Vietnamese (although caring for wounded enemy and refugees was commonplace).<sup>1</sup> Prisoners and detainees are entitled to healthcare, humane treatment, and the right to refuse these offers and to die with dignity in a peaceful manner. Nurses are often the first to suspect or detect ill treatment of these persons and must take appropriate actions to safeguard their rights. This is an awesome responsibility.<sup>33</sup>

The Vietnam conflict had a dramatic effect on the professional philosophy and career decisions of many nurses.<sup>1</sup> Of 50 veterans interviewed, 60% reported they returned home with a stronger commitment to the profession and felt they could do their jobs well and handle challenging situations. About half of the group changed their clinical work to another specialty or a different type of practice setting. The majority (72%) said they would volunteer for duty in a war zone today. The 12 on active duty remained close to their war experiences in other ways: Three Air Force nurses and one who was in the US Army in Vietnam fly on medical evacuation planes and use their expertise to train other nurses; several US Navy nurses helped design new hospital ships; and a number of US Army nurses used their experiences to train and plan future requirements for nurses in war situations.<sup>1</sup>

In any clinical setting, weighing competing principles that support alternative courses of action is the essence of resolving ethical dilemmas. Clinical decisions are often approached from several perspectives including law, self-interest, professional codes and guidelines, clinical standards, and ethical principles. Striving to make right decisions and avoid making wrong ones is a common goal of healthcare professionals as they address the health and comfort of patients in their care. From the perspective of law, decisions must be consistent with legal rules to minimize the risk of prosecution and lawsuits. From the perspective of self-interest, decisions may advance the welfare of the professional or the institution, but they should not constrain moral action. Internal constraints include lack of professional confidence, fear, and insecurity. External constraints may include the authority of physicians, the policies and directives of hospital, medical, or nursing administration, or the threat of legal action. Many of these constraints, deeply rooted in history, are part of the socialization of the healthcare

professions and the organization of healthcare services. This influence has been considered to be so strong that nurses in some settings did not always feel free to be moral.<sup>34</sup>

The military environment must be sensitive to the influence of relationships between superiors and subordinates, particularly as related to rank and position. In today's environment, relationships between powerful superiors and subordinates are often viewed as coercive even when there is no specific allegation of harassment. For professional nurses, being commissioned as officers somewhat levels the playing field; yet, position within their practice setting could be an issue. Appropriate use of the chain of command will resolve these instances should they occur. One such resolution is illustrated by the following quotation:

[T]here was [sic] five or six of them and me. And again, I'm a lieutenant, they all like way outrank me and...there wasn't [sic] any other nurses there either, it was just all docs and they were all...banding together against me. And that's when I said, okay, forget it, you know, if they're gonna [sic] pull this kind of communication style, I'm going to enlist the support of my chain of command, and pull them in.... Things went smoothly. Um, much more. It started unofficially with just Mr. Y there. One of the...surgeons, the vascular surgeon who's the chief though, so it was somebody who was actually was further up in the chain of things, and then the chief resident of the SICU [surgical intensive care unit] service, and my head nurse and I. So there was the six of us in the room together and communication was more professional and open.<sup>35</sup>

To assure an environment where professional nurses bear primary responsibility and accountability for the nursing care patients receive, the *Army Medical Department Standards of Nursing Practice* was published in 1981. This comprehensive document referenced a symposium on bioethical issues in nursing and the ANA Code for Nurses. It was noted that "implementation of these standards will serve to enhance the cooperative and collaborative relationships of the health care team who seek to provide optimal health care to patients and their families."<sup>36(p1-1)</sup>

As members of the healthcare team so integrally involved in patient care, and as part of their role as patient advocates, nurses should participate in ethical decision-making processes. Over the past 25 years, there has been a rapid increase in the number of institutional ethics committees in healthcare facilities and nursing participation in committee activities. Committees are now interdisciplinary,

having administrators, physicians, nurses, clergy, social workers, and attorneys represented. It is common to have members from other healthcare disciplines, patient representatives, quality improvement facilitators, ethics consultants or philosophers, and healthcare consumers of the institution represented as well. The more open the committee is to multidisciplinary participation, both as members and for consultation or referrals, the better the setting should be to address the ethical issues, questions, or dilemmas of staff and consumers.

The usefulness of the multidisciplinary approach to address ethical dilemmas is shown in the following case where caregivers held divergent views of what was in the best interest of the patient.

**Case Study 20-1: Life Following Tragedy.** A young soldier had suffered a severe wound caused by a grenade explosion; the severed spinal medulla led to an irreversible paralysis from the neck down. Excellent surgical and medical treatment kept the patient alive. When he became aware of his irreversible condition, the soldier begged to die. The doctors maintained him on parenteral nutrition while the nurses wanted to discuss the young man's future. The doctors' attitude was one of denial while the nurses' was one of oversensitivity toward the patient's demands. This led to underlying conflict between the doctors and nurses. Finally, the case was debated during a grand rounds session attended by representatives of the hospital ethics committee. This, by itself, reduced the anguish.

**Comment:** Abrupt tragedy, like the experience of this young soldier, not only affects the patient and significant others but also those providing his care. In the initial days following the event, the physicians focused on sustaining life while the nurses tended to focus on the meaning and quality of life. When each stepped back from the immediacy of the situation during grand rounds, their views could be presented and discussed, along with those held by others. After all, the healthcare disciplines are taught that rehabilitation begins with admission, and certainly in this case, there was much work to be done.

A survey of Army hospitals in 1986 confirmed that the prevalence of medical ethics programs paralleled that of the private sector.<sup>37</sup> Most respondents recognized the advisory or consultative role as being most useful. The educational, case review, and policy interpretation roles were viewed as beneficial but not to the same extent. A similar survey in the metropolitan New York area reported that all participating institutions included nurses as members of the hospital ethics committee.<sup>38</sup> Although most nurses held administrative and management positions, a few members were from clinical positions, particularly specialty areas such as critical

and emergency care. The topics most frequently addressed by ethics committees, in descending order, were Do-Not-Resuscitate, withhold-withdraw treatment, acquired immunodeficiency syndrome (AIDS), allocation of resources, patient rights, and death and dying. When asked to identify those issues "most important" in nursing practice, respondents reordered the same topics and added professional practice issues as second most important.<sup>38</sup>

An ANA publication, *Ethical Dilemmas in Contemporary Nursing*, included chapters on similar issues.<sup>39</sup> Some of the topics were Do-Not-Resuscitate, advance management preferences, informed consent, the patient who refused to be fed, the issue of restraints, and care of the pediatric patient with AIDS. The practical ethical questions that may arise in the clinical management of patients frequently include scenarios related to these topics. How nurses, physicians, patients, families, and other members of the team approach resolution of these issues is important to all. Obviously, in many clinical situations more than one solution, right answer, or treatment option is possible. Culture, religious and political beliefs, and socioeconomic circumstances influence the final choices.

Considering the complexities of today's healthcare environment, influenced by rapid technological and scientific advances (genetic engineering, for example), multiple treatment alternatives, escalating costs, an aging population, and so forth, it is not unexpected that various healthcare professionals would hold differing opinions depending on their vantage point. If one assumes that the primary concern of these professionals is the well-being of the patient, then it is imperative for them to come together as a team to promote this goal. To resolve conflict and deal appropriately with ethical questions, recognition of each other's rightful authority, competencies, and value to the total care of the patient is essential. The greater the degree of collaboration between nurses and physicians caring for the patient and family, the easier it becomes to find resolution. Attributes of collaborative practice include mutual trust and respect, and shared decision making, responsibility, and accountability. Mutual trust and respect implies appreciation and understanding of each other's work, knowledge, and experience including the different views or perspective of a patient than the other may hold. Shared decision making requires understanding that professionals are interdependent and have a commitment to approach the negotiation process with an open mind.<sup>30</sup>

Treatment options are expected to reflect com-

pliance with relevant professional codes and guidelines and should be based on appropriate clinical norms and standards. Decisions should also be consistent with general ethical principles. Decisions that seem right from one perspective, however, may not be right according to other perspectives and vice versa. Therefore, it is not feasible in some situations to clearly satisfy the best choice from all perspectives. Clinical data and ethical considerations must be weighed in considering the patient's best interests. Patients' particular preferences and values can be of great assistance in reaching the best decision. Patients are likely to be consistent and trustworthy advocates of their own interests as long as they maintain decision-making capacity. In the exceptional clinical situations when the healthcare team cannot resolve recalcitrant ethical conflicts among themselves or with the patient and family or both, consultation with institutional ethics committees or consultation services can be of great assistance with ethical dilemmas, just as consultation with specialists can help resolve difficult clinical questions.

### Continuing Education

The increase in complexity of nursing practice has given rise to many ethical dilemmas. Nursing's commitment to patient care should always be directed toward supporting and enhancing the patient's self-determination because "health is not necessarily an end in itself, but is rather a means to a life that is meaningful"<sup>40(pi)</sup> from the patient's perspective. The fundamental search for meaning in life can be viewed through observing the ethical and moral aspects of human actions. This is the case for the "why" and the "what for" of health and, therefore, associated with the medical act. We do not live to be healthy, instead we are or want to be healthy to live and work. However, it is worth raising the question, "Why do we live and work?" To reach and capture the sense of this meaning and to fulfill this role, nurses must be accountable advocates, although the patient is the primary decision maker in matters concerning personal health, treatment, and well-being.<sup>40</sup> Continuing education is required for nurses to maintain their competence and to enhance their professional advancement. It is an essential component of human resources development for nurses to support a high level of knowledge, skill, and commitment for the provision of quality care.

According to Smith,<sup>41</sup> nurses need to recognize the ethical nature of their work, discern which ethical decisions are theirs to make, and acknowledge

their authority to make ethical decisions in their practice. To achieve this end, the Carruths<sup>42</sup> concluded that continuing education might provide the most sound basis for the ongoing development and improvement of a practitioner's ethical conduct. The fundamental goals for continuing education in ethics are to increase understanding of ethically related issues, to increase awareness of other healthcare professionals' feelings regarding ethical issues, and to increase the ability to form ethical arguments and justify decisions. Taking it one step further, it is equally important to recognize, respect, and adopt a multidisciplinary approach to these decisions for the best interest of the patient. To be human, responsible, caring, and moral in the clinical setting is a burden shared by all.

Actually, Smith<sup>41</sup> supported this approach in her discussion of deliberation and integration as two distinct components of the ethical decision-making process. Deliberation is the process an individual nurse uses to arrive at an ethical decision. Much has been published about nurses perceiving a lack of power or authority to make ethical decisions or act as free moral agents. Smith concluded that the problem is not significantly related to deliberation—how nurses consider their integrity, perspectives, consequences, and priorities, and arrive at a decision—but directly related to difficulty with the process of integration. Nurses have perceived a lack of power to effect the larger clinical ethical decision. Therefore an important goal of continuing education in ethics for nurses is to assist nurses in developing methodologies for participating as team members in the clinical ethical decisions made daily. The following quotation illustrates how a junior nurse in the military setting chose to deal with what she perceived to be an ethical dilemma regarding one of her patients:

I talked to the residents that were there in the room at the time, the SICU residents and the cardiologist happened to be on the ward as well and I just kind of said, "Look, did you guys like talk to the family, do you really think he understood what was going on?" And got a somewhat abrupt and rude reply, basically,..."it's none of the family's business...of course he understood he signed his name." And I said...and I was like, "I don't think so," so I took it up a step further to the senior resident and it got even uglier. And so then I went up my chain and just talked to the nursing supervisor and my head nurse. My head nurse then said, "No,...let's get everybody together and find out what the scoop is." And from there it went to a formal ethics consult, because the consent for surgery could easily be documented as illegal and unethical.<sup>35</sup>



To enhance the process of developing team methodologies for attending to ethical issues at the Walter Reed Army Medical Center, Washington, DC, the bioethics education program, "Decisions Near the End of Life," was implemented in 1996. The goals of the program, developed jointly by the Education Development Center, Inc. and the Hastings Center, are to:

- increase and improve communication between providers and patients, and among providers caring for the same patient around difficult issues of medical ethics;
- identify resources to help institutions examine their policies and procedures, develop new ones as needed, and bring practice into line with current policy; and
- demonstrate appropriate roles and responsibilities for healthcare professionals fostering teamwork and conflict resolution.

Case studies are used to address the difficult questions and ethical dilemmas that arise in the use of life-sustaining treatment for critically and terminally ill adults. Participants include physicians, nurses, social workers, administrators, attorneys, and pastoral counselors as well as other healthcare providers. This example demonstrates one approach to continuing education in ethics, an important component of professional development.<sup>43</sup>

Another approach is demonstrated at the Naval Medical Center, Portsmouth, Virginia. Every member of the multidisciplinary Medical Ethics Committee is obliged to complete an ethics-training course and to undertake a continuing program of self-education. Available educational materials include: (a) written information and workshops on clinical ethics, (b) direct involvement in mock and real consultations, and (c) skills in communication, group leadership, individual and group dynamics, mediation, self-awareness, and multicultural sensitivity.

The ethics training course covers the: (a) history, mission, and scope of ethics committees; (b) command instructions involving ethical issues; (c) legal concerns involving ethical considerations of clinical care; and (d) obligations, focusing on disclosure, assessment of capacity, the informed consent process, confidentiality, and truthfulness. This leads to clinical ethics issues such as refusal of treatment, foregoing life sustaining treatment, controversial reproductive choices, access and cost, death and dying, and diverse cultural and religious traditions affecting decision making. Due to the ex-

tensive education and training commitment, members appointed to the Medical Ethics Committee serve for the duration of their tour of duty at the Naval Medical Center, Portsmouth.<sup>44</sup>

The US Air Force has several ongoing initiatives in education, administration, practice, and research that focus on the ethical dimensions of healthcare. This, along with the appointment of a consultant for nursing ethics by the Air Force Surgeon General, reflects the position of nurses as moral agents. In addition to facility-wide ethics education programs and processes designed for comprehensive management of ethical and moral concerns, there is discussion of the moral reasoning process, ethical considerations, and the development of cultural competence in preparation for deployment to humanitarian and peacekeeping operations. These operations, for all the military services, may be in response to human-induced (eg, armed conflict, environmental degradation, industrial accidents) or natural (flood, earthquake, volcano) disasters. An immediate response to care for victims may be required, so readiness related to disaster response and preparedness plans is essential.<sup>45</sup> Similarities and differences between the practice environments at home and in deployed settings are explored. The challenges confronted during previous deployments are transformed into "lessons learned," and the information is integrated into readiness training exercises. Innovations and efforts at Air Force healthcare facilities have included: (a) interdisciplinary ethics committees along with consultative services for patient care concerns; (b) improved communication processes to address ethical issues and to share information from both the academic and practice communities; and (c) classes, courses, and conferences to teach ethics and moral reasoning. Access to the Internet, Worldwide Web, and e-mail facilitates communication on ethical issues as well as the use of more traditional reference sources.<sup>46</sup>

The Worldwide Web has the potential to be the best mode of delivery for ethics education. The Nursing Ethics Network (which can be accessed at [www.bc.edu/nursing/ethics](http://www.bc.edu/nursing/ethics)) has identified the need for ethics education and research resources as the two most frequent reasons nurses turn to their Internet ethics service. Nurses are asking for help with professional competence questions and complex care decisions with an ethical component and seeking resources for advancement of ethics within their work setting. Members of the advisory board with ethics expertise respond to the questions. They do not provide answers but assist nurses to find resolutions themselves.<sup>47</sup>



## Nursing Research

The 2001 “Code of Ethics for Nurses With Interpretive Statements” promotes nursing behaviors that contribute to the ongoing development of the profession’s body of knowledge. Therefore, nurse researchers investigate the many factors known to affect human health for the purpose of developing clinical interventions and providing information that will guide and improve nursing practice. The focus is to expand the body of knowledge related to the enhancement of personal health, to ameliorate pain and suffering, and to improve patient care in a manner that will restore individuals, or communities, or both to their highest level of functioning.<sup>48</sup>

All nurses have a role in the research process, whether they are principal investigators, subjects, or merely consumers of research. It is the responsibility of every nurse to develop an awareness of nursing research, to use it in patient care, and to articulate it in patient/family education. In the clinical setting, nurses caring for patients who are research subjects serve as patient advocates, identifying potential ethi-

cal problems related to their participation in the research protocol. Nurses, at time of employment, should be informed regarding their expected roles as subjects or data collectors in research projects. Early publications by the ANA on the rights of persons who participate in research included the 1975 “Human Rights Guidelines for Nurses in Clinical and Other Research,” and the 1976 guidelines for the “Preparation of Nurses for Participation in and Utilization of Research.” More recently the association published, “Ethical Guidelines in the Conduct, Dissemination, and Implementation of Nursing Research.” This comprehensive document provides a detailed framework for ethical nursing research. The focus is on nine ethical principles with commentary and research guidelines for each principle<sup>49</sup> (Exhibit 20-2).

Although military nurses were highly instrumental in establishing nursing research in general, documentation of when and where military nurses first became involved in research is rather vague. However, Dr. Harriet Werley referenced articles describing Army nurses’ early work in relation to research in military situations:

### EXHIBIT 20-2

#### ETHICAL PRINCIPLES IN THE CONDUCT, DISSEMINATION, AND IMPLEMENTATION OF NURSING RESEARCH

1. The investigator respects autonomous research participants’ capacity to consent to participate in research and to determine the degree and duration of that participation without negative consequences.
2. The investigator prevents harm, minimizes harm, and /or promotes good to all research participants, including vulnerable groups and others affected by the research.
3. The investigator respects the personhood of research participants, their families, and significant others, valuing their diversity.
4. The investigator ensures that the benefits and burdens of research are equitably distributed in the selection of research participants.
5. The investigator protects the privacy of research participants to the maximum degree possible.
6. The investigator ensures the ethical integrity of the research process by use of appropriate checks and balances throughout the conduct, dissemination, and implementation of the research.
7. The investigator reports suspected, alleged, or known incidents of scientific misconduct in research to appropriate institutional officials for investigation.
8. The investigator maintains competency in the subject matter and methodologies of his or her research, as well as in other professional and societal issues that affect nursing research and the public good.
9. The investigator involved in animal research maximizes the benefits of the research with the least possible harm or suffering to the animals.

Source: Silva M. *Ethical Guidelines in the Conduct, Dissemination, and Implementation of Nursing Research* (D-95 5M 5/95). Washington, DC: American Nurses Publishing; 1995: 4.

Clara Maass' participation in the yellow fever experiments in 1901, which resulted in her death; Sara E. McCallister's work and association with studies of wounds and infection; Claussen's patient categorization according to nursing care needs; Charlotte Rodeman's work with the milieu therapy study group; Mada F. Woodward's and Alice S. Clark's work on reducing bacterial count in hospital areas through hospital disinfection with beta-propiolactone; Phyllis J. Verhonick's research on decubiti; Mariam K. Ginsberg's research on oral and nasal hygiene; and Jacqueline H. Sellees and Ann E. Yodees study of temperature readings.<sup>50(p52)</sup>

Werley also described the supporter, technician, consultant, collaborator, and investigator roles of nurses in research.<sup>51</sup> The establishment of the Department of Nursing at Walter Reed Army Institute of Research, Washington, DC, in 1957 created an unprecedented and unique opportunity for US Army nurses. Nurse investigators, assigned to the unit and free of nursing service commitments, had the opportunity to assist and learn from accomplished investigators. These early pioneers were committed to the pursuit of research in nursing practice and viewed Walter Reed General Hospital, adjacent to the Institute, as a fertile clinical laboratory.<sup>52</sup> From 1961 until 1969, seven classes totaling 28 nurses attended the 10-month-long Military Nursing Practice and Research Course. The unit continues today, now known as the Nursing Research Service, Department of Nursing, Walter Reed Army Medical Center. Current research projects, under the auspices of this unit, include significant participation in the Tri-Service Nursing Research Program.<sup>53</sup>

Since the 1960s, the US Army Nurse Corps has provided graduate education in civilian university programs for selected, promising nurse researchers. Over time, the US Army designated a nursing research consultant to the Army surgeon general (1968), formed the Nursing Research Advisory Board (1976), established the biennial Phyllis J. Verhonick Nursing Research Symposium (1981), and implemented a regional approach to support nursing research. Much of the military nursing research literature is contained in theses, dissertations and studies from training programs, available only through the National Technical Information Service or the Defense Technical Information Service. The history of nursing research in the US Navy and US Air Force has been traced through the review of unpublished masters' theses and mimeographed documents from the School of Aerospace Medicine, Brooks Air Force Base, Texas. More formal nursing

research endeavors began in the US Air Force in the late 1960s and in the US Navy in the early 1980s.<sup>54</sup>

The Tri-Service Nursing Research Program was established in fiscal year 1992 when Congress appropriated initial funding of \$1 million to support targeted research by military nurses. The purpose of the program is to improve nursing care for Department of Defense beneficiaries by expanding the body of scientific knowledge upon which military nursing practice is based. Research funded by this initiative should have a positive impact on healthcare and the health status of military populations. In 1993, the call for proposals identified ethics studies as one of the priorities for funding. Current studies with ethical implications, funded by the program, include: (a) Nurse–Patient Relationship Patterns: An Economic Resource; (b) Effects of Separation on Families During Hospitalizations; (c) The Lived Experience of Military Women Who Discontinued Breast Feeding Before Planned; (d) The Effects of Culturally Sensitive Messages and Health Beliefs; (e) Fatigue Following Childbirth: Military Family Outcomes; (f) The Experience of Chief Nurses in Military Operations Other Than War; (g) Neurometric Assessment of the Effects of Analgesia; and (h) Listening to Voices of Women in a Family Advocacy Program.<sup>55</sup>

During its first 4 years, the Tri-Service Nursing Research Program developed a \$9.68 million portfolio of 77 projects conducted by nurses in the armed forces. Awards were granted to members of all three military services, including active, reserve, and guard components. "Military nursing research addresses many areas: the unique military environmental settings in which care is provided; mission readiness and deployment of military personnel; and improving nursing structure (delivery systems) and processes to enhance clinical outcomes, health status and quality of life of diverse military personnel, their beneficiaries, and populations receiving care during humanitarian, peacetime, and wartime missions."<sup>53(p17)</sup> Findings from military nursing research not only benefit the military, but in many cases also benefit the private sector.

## **Nursing Administration**

Ethical dilemmas in the practice of nursing administration differ from those in clinical nursing. Yet, obligations to patients, staff members, and the profession involve judgments about justice, fidelity, and beneficence. The resolution process remains much the same for most ethical dilemmas. Nurse administrators, as any organizational leader or ex-

ecutive, are morally obligated to use their influence and power responsibly to better serve their constituents. In various situations, nurse administrators may experience conflicting expectations and values. These may include doing good for one patient or employee versus benefiting all patients or employees; attending to the welfare of an individual or group within the organization versus responsibility to the institution or organization as a whole; and serving the moral obligations of administrative practice concurrently with those of professional nursing, including balancing costs and benefits. Nurse administrators strive to provide safe and respectful work environments with adequate support and resources where personnel provide quality care to meet patient needs.

Recent changes in healthcare reimbursement systems have caused administrators to focus on ethical issues related to the appropriate use of human and financial resources. Heightened competition for nursing resources both within and among countries, characterized by an increasing demand and a decreasing supply, has highlighted the importance of human resource planning and development at a global level. Although career mobility and multicultural practice are desirable, nurses must not be exploited as the result of unscrupulous recruitment or inappropriate working conditions. Fair and cost-effective recruitment and retention practices are an important component for assuring an adequate supply of qualified and committed nursing personnel.<sup>56</sup>

Research has identified administrative decisions related to patient care issues as most likely to present ethical dilemmas. These included staffing level and mix situations, developing/maintaining standards of care (quality), and the allocation of scarce resources. Respondents also ranked those decisions related to patient care issues as highest in frequency of occurrence. Issues related to employee interpersonal or professional performance were reported less often as presenting ethical dilemmas. These included problems related to physician or nurse incompetence, demotion or termination of employees, and employee relations.<sup>57</sup>

Most nurse administrators are challenged to provide more cost-effective care, a goal of the restructuring occurring in the American healthcare system. The aim is to reduce waste and costs, enhance efficiency and access, and pass on savings to the purchasers of healthcare without loss of quality. When nurses are concerned that work redesign would compromise the quality of care, Mahlmeister<sup>58</sup> recommended that the plan, action or activity be examined by asking three questions: (1) Is this legal? (2) Does this

violate an accepted or published standard? and (3) Will this violate the ANA Code of Ethics?

With thorough answers to these questions, efforts should be aimed at working at the lowest level possible in the system to resolve the issues in some mutually agreeable manner. If this is unsuccessful, top administration should be formally appraised of the situation. If the employer does not correct the problem, the nurse may need to move beyond the agency and report these concerns to appropriate authorities such as the state board of nursing. The ANA published the 1994 "Guidelines on Reporting Incompetent, Unethical or Illegal Practice" to assist nurses confronted with questionable actions or situations. This document describes these types of conduct and reporting responsibilities, and provides a model for action.<sup>59</sup>

Nurses as patient advocates are expected to safeguard the client and the patient when healthcare and safety are affected by incompetent, unethical, or illegal practice by any person. Making the determination about what constitutes these behaviors is a first step; determining what to do about it is not always easy. Nurses frequently ask what they can do and whom they can tell about unsafe or illegal conditions that they are experiencing. They do not want, however, to experience discrimination or harassment or lose their jobs. Their concerns are well founded. If advocacy is the role of nursing, who protects the nurse in the advocacy role? Nurses must have the freedom to report unsafe practices without undue concern. Employing institutions and agencies providing nursing services have an obligation to establish a process for reporting and handling practices that jeopardize patient health or safety. The method may be as informal as an "open door" policy allowing staff members to take their complaints through all chains of command or as formal as a grievance and arbitration procedure. The point is that some established process needs to be in place for reporting questionable actions so that nurses can pursue such matters through official channels without fear of reprisal.

Protection from workplace violence, including physical violence, sexual harassment, and verbal abuse is also essential to assuring nurses' rights to personal dignity, integrity, and freedom from harm. Among health personnel, the nursing staff is most at risk. Many factors, such as the stress of sickness, coping with potentially life-threatening situations, interventions demanding close physical contact, shift work, demanding workloads, and attitudes about women may aggravate misbehavior. Adequate staffing levels, work methods that support

quality care, and fostering respectful treatment for all help create a respectful and safe work environment. Appropriate security measures, confidential grievance procedures, access to counseling services and legal aid for victims and perpetrators of violence, and support of nurses during reporting/compensation and claim procedures reflect a “zero tolerance” of violence.<sup>60</sup>

Such processes are necessary to balance the mechanisms of control that permeate the healthcare environment. These controls range from formal power, associated with hierarchical supervision, standard operating procedures, codes of conduct, and accreditation requirements, to informal influences such as peer pressure and prevailing attitudes within the organization. Recognition of the influence or power exerted on patients, subordinates, and peers is particularly cogent in the military setting where the superior-subordinate relationship is overt.

Military nurse administrators, being both commissioned officers and professional nurses, bear a dual responsibility to develop and sustain the ethical climate. As officers and leaders, the authority over subordinates is greater than almost any other human relationship in our society. Care must be taken to use this authority only to fulfill responsibilities and not to exploit or degrade subordinates. It is important to reach out in the organization, encourage openness, listen to what subordinates have to say, and help them establish the moral strength to do what they believe is right. Subordinates must be encouraged to look at options for resolving issues and to consider the ethical implications of the situation.

Even in environments where such processes are in place, each nurse has a personal threshold for the burdens and sacrifices that will be tolerated, and, therefore, there may be considerable variability among nurses. Each has to examine the tension between obligation to the patient and to colleagues, to the institution where they practice, and to themselves. The resulting action may be reporting to superiors or licensing boards, using institutional mechanisms, or in severe cases “blowing the whistle” through disclosure to law enforcement agencies outside of the employer’s facilities.<sup>61</sup> Responsible nurse administrators should assure that nurse employees are aware of current nursing standards, the “Code of Ethics for Nurses,” and laws governing nursing and practices. Although the ultimate accountability for professional practice lies with the individual nurse, nursing leadership should support and assist their staff in meeting these professional obligations. Through discussion and practice, nurses develop a shared ethical perspective on how to accomplish their basic purpose while following acceptable means and giving reasonable consideration to the value and dignity of all human life.

Nurse administrators, in either the military or the private sector, must consider questions about staffing levels, clinical competence, standards of care, and economic efficiency as part of their routine responsibilities while they address fairness, faithfulness to duty, and commitment to the organization. When deployed, working in austere, sometimes dangerous, and culturally sensitive environments adds another dimension to the challenges for military nurse administrators.

## CONCLUSION

The development of military nursing in the United States was closely associated with nursing leaders from the private sector. Many challenges were influenced by the social status attributed to nursing and to women in general at that time. Following the Civil War, the strong emergence of women from home to larger societal purpose helped set the stage for nursing to emerge as a profession and for trained women nurses to be included in military organizations.

Early references to ethics in nursing centered around morals and manners. Social etiquette was emphasized as the first formal schools of nursing attempted to attract educated daughters from respectable middle class families. Following World War I as more trained nurses were available to the profession, ethics content began to shift. Definitions of nursing

ethics, as an extension of ethics, were published and discussed as part of the nursing curriculum.

Initially, The Nightingale Pledge gained significant recognition as the code for nursing in the United States. Organized nursing, however, proposed to establish a more formal code for the purpose of promoting ethical standards for professional conduct. Since its inception in 1926, the “Code of Ethics for Nurses” has periodically been revised to remain relevant to changes in the nursing and healthcare professions. The code serves to inform both the nurse and society of the profession’s expectations and requirements in ethical matters. Revisions to the code, considered to be a living document, reflect changes in nursing’s relationship to society and the societal concerns of the times.

Nursing, in general, tends toward the psycho-



logical and social meaning of life and death, health and illness concentrating on patient advocacy and care. The practice of medicine tends toward the disease-fighting model concentrating on the application of research and cure. Although there are distinct differences between the professions, no one on the healthcare team functions independently of others in providing total healthcare to those being served. The challenge is to get each to recognize their interdependence and to collaborate in providing the most beneficial treatment and care to the patient.

Acting in the best interest of the patient when addressing traditional ethical questions in healthcare and other underlying principles or values for patient care appears to be the same for all healthcare professionals. Even the decision-making processes nurses and physicians use in solving ethical issues do not appear to significantly differ. The real and important difference may be that each views the patient and any related ethical dilemma from a combination of his or her own personal and professional perspectives.

Although clinical ethics for nurses in the military do not differ from those in the private sector, the overlay of wartime nursing does add professional strain and certain moral dilemmas. Even though nurses feel pride in their contributions to patient care in austere and sometimes dangerous environments and the wartime role of professional nursing, their feelings and attitudes toward armed conflict may be forever tempered. The stress of the

experience impacts future perspectives.

Considering the complexities of today's healthcare environment, it is not unexpected that various providers would hold differing opinions depending on their vantage point. Ethical dilemmas arise when miscommunication and controversy occur among patient, family, physician, nurses, and other healthcare professions. The ultimate goal is to bring the individuals together as a team to resolve their issues in the best interest of the patient. The greater the degree of collaboration between nurses and physicians caring for the patient and family, the easier it becomes to find resolution. Collaboration includes mutual trust and respect, and shared decision making, responsibility, and accountability.

Continuing education to emphasize collaborative ethical decision making is an important component of professional development. Another is research to extend the body of professional knowledge and to improve practice. Adherence to ethical principles in the conduct of research and professional practice is essential. Incidents of incompetent, unethical, or illegal nursing practice must be reported to the appropriate authority. Nursing leaders are responsible for providing safe and supportive working environments that promote professional nursing practice and mutual respect. Military nurse administrators, as commissioned officers and professional nurses, bear a dual responsibility to develop and sustain the ethical climate. They must encourage subordinates to look at options for resolving issues and consider the ethical implications of the situation.

## REFERENCES

1. Norman EM. *Nurses in War: A Study of Female Military Nurses Who Served in Vietnam During the War Years 1965–1973* [dissertation]. New York University; 1986.
2. Feller CM, Moore CJ, eds. *Highlights in the History of the Army Nurse Corps* (CMH Pub 85-1). Washington, DC: US Army Center of Military History; 1996.
3. Hanson KS. A network of service: Female nurses in the Civil War. *Caduceus*. 1995;11(1):11–22.
4. Johns E, Pfefferkorn B. *The Johns Hopkins Hospital School of Nursing, 1889–1949*. Baltimore, Md: Johns Hopkins Press; 1954.
5. Glass LK. The Naval Reserve Corps: The first fifty years, 1908–1958. *Caduceus*. 1995;11:35–52.
6. Stimson J. Untitled typewritten document found in Julia C. Stimson Papers, Box 3, File 2 (1925); US Army Center of Military History, provided by Mary T. Sarnecky.
7. Gretter L. Florence Nightingale Pledge: Autographed manuscript dated 1893. *Am J Nurs*. 1910;104:271.
8. Freitas LF. Historical roots and future perspectives related to nursing ethics. *J Prof Nurs*. 1990;6(4):197–205.

9. Fowler MD. A chronicle of the evolution of the code for nurses. In: White GB, ed. *Ethical Dilemmas in Contemporary Nursing Practice*. Washington, DC: American Nurses Publishing; 1992: 149–154.
10. Viens DC. A history of nursing's code of ethics. *Nurs Outlook*. 1989;37(1):45–49.
11. Smith LS. History of American military nursing. *Adv Clin Care*. 1991;6:31–32,36.
12. Turin D. Communications Department, International Council of Nurses, Geneva, Switzerland, E-mail Communication, 31 May 2002.
13. Gordon S. *Life Support*. Boston: Little Brown & Co; 1997: 100.
14. Crowder L. Manners, morals, and nurses: An historical overview of nursing ethics. *Texas Rep Biol Med*. 1974;32:173–180.
15. Norman EM. Women at war: The story of fifty military nurses who served in Vietnam. *N J Nurse*. 1992;22(2):15.
16. Norman EM. After the casualties: Vietnam nurses' identities and career decisions. *Nurs Res*. 1992;41(2):110–113.
17. *Nursing's Social Policy Statement* (NP-107 7.5M 9/98). Washington, DC: American Nurses Publishing; 1995.
18. *The ICN Code of Ethics for Nurses* (ISBN 92-95005-16-3). Geneva, Switzerland: International Council of Nurses; 2000.
19. *Code of Ethics for Nurses With Interpretive Statements* (ISBN 1-55810-176-4). Washington, DC: American Nurses Association; 2001.
20. Ladd J. Some reflections on authority and the nurse. In: Spicker SF, Gadow S, eds. *Nursing Images & Ideals*. New York: Springer Publishing Co; 1980: 160–175.
21. Murphy CP. Introduction. In: White GB, ed. *Ethical Dilemmas in Contemporary Nursing Practice*. Washington, DC: American Nurses Publishing; 1992: xxi–xxiv.
22. Sullivan MC. Professionalism and ethics in nursing. *Second Opin*. 1986(1):102–119.
23. Walker RM, Miles SH, Stocking CB, Siegler M. Physicians' and nurses' perceptions of ethics problems on general medical services. *J Gen Intern Med*. 1991;6(5):424–429.
24. Leitch R. Personal Communication, 1997.
25. Ortiz Quesada F, MD. Personal Communication, 1998.
26. White GB. Philosophical ethics and nursing: A word of caution. In: Chin PL, ed. *Advances in Nursing Theory Development*. Rockville, Md: Aspen; 1983: 35–46.
27. Garritson SH. Ethical decision making patterns. *J Psychosoc Nurs Ment Health Serv*. 1988;26(4):22–29.
28. Gilligan C. *In a Different Voice: Psychological Theory and Women's Development*. Cambridge, Mass: Harvard University Press; 1982.
29. Cooper MC. Principle-oriented ethics and the ethic of care: A creative tension. *ANS Adv Nurs Sci*. 1991;14(2):22–31.
30. Peter E, Gallop R. The ethic of care: A comparison of nursing and medical students. *Image J Nurs Sch*. 1994;26:47–51.
31. Grundstein-Amado R. Differences in ethical decision-making processes among nurses and doctors. *J Adv Nurs*. 1992;17(2):129–137.
32. Pike AW. Moral outrage and moral discourse in nurse–physician collaboration. *J Prof Nurs*. 1991;7(6):351–362.

33. *The Nurses' Role in the Care of Prisoners and Detainees*. Geneva, Switzerland: International Council of Nurses; 1998.
34. Yarling RR, McElmurry BJ. The moral foundation of nursing. *ANS Adv Nurs Sci*. 1986;8(2):63–73.
35. Reeder, J, Fry S. *Nurses' Roles in Life-Sustaining Treatment Decisions*. Research grant #N94-036, funded by the Triservice Nursing Research Program, Uniformed Services University of the Health Sciences, Bethesda, Md.
36. US Department of the Army. *Army Medical Department Standards of Nursing Practice*. Washington, DC: HQDA; November 1981: Pamphlet 40-5.
37. Carter BS. Medical ethics committee: A survey of Army hospitals. *Mil Med*. 1988;153:426–429.
38. Scanlon C, Fleming C. Confronting ethical issues: A nursing survey. *Nurs Manage*. 1990;21:63–65.
39. White GB, ed. *Ethical Dilemmas in Contemporary Nursing Practice*. Washington, DC: American Nurses Publishing; 1992.
40. *Code for Nurses with Interpretive Statements* (G-56 7.5M 10/96). Washington, DC: American Nurses Publishing; 1985.
41. Smith KV. Ethical decision-making in nursing: Implications for continuing education. *J Contin Educ Nurs*. 1996;27(1):42–45.
42. Carruth PJ, Carruth AK. Applying ethics to health care: The role of continuing education. *Health Care Superv*. 1991;10:62–68.
43. Beam TE, Carter BS. Washington, DC: Walter Reed Army Medical Center. Memorandum, undated.
44. Meredith NV, CDR, NC, USN, Command Ethicist, Naval Medical Center, Portsmouth, VA, Personal Communication, 11 February 1998.
45. *Nurses and Disaster Preparedness*. Geneva, Switzerland: International Council of Nurses; 2001.
46. Turner M, Colonel, Nursing Corps, US Air Force. Personal Communication, 1998.
47. Riley J. Wired on ethics. *Reflections*. 1998;24(2):32.
48. Wintz CJB. A nurse's research dilemma. In: White GB, ed. *Ethical Dilemmas in Contemporary Nursing Practice*. Washington, DC: American Nurses Publishing; 1992: 129–145.
49. Silva M. *Ethical Guidelines in the Conduct, Dissemination, and Implementation of Nursing Research* (D-95 5M 5/95). Washington, DC: American Nurses Publishing; 1995.
50. Werley HA. Army nurse participation in and contribution to research. *Nurs Outlook*. 1963;11:52–55.
51. Werley HA. The different research roles in Army nursing. *Nurs Outlook*. 1963;11:134–136.
52. Verhonick PJ, Werley HH. Experimentation in nursing practice in the Army. *Nurs Outlook*. 1963;11:204–206.
53. Committee on Military Nursing Research. *The Program for Research in Military Nursing: Progress and Future Direction*. Washington, DC: Institute of Medicine, National Academy Press; 1996.
54. Kalisch PA. Weavers of scientific patient care: Development of nursing research in the US armed forces. *Nurs Res*. 1977;26(4):253–271.
55. Committee on Military Nursing Research. *Military Nursing Research: Bibliographies*. Washington, DC: Institute of Medicine, National Academy Press; 1996.
56. *Ethical Nurse Recruitment*. Geneva, Switzerland: International Council of Nurses; 2001.

57. Borawaki DB. Ethical dilemmas for nurse administrators. *J Nurs Adm.* 1995;25:60–62.
58. *Abuse and Violence Against Nursing Personnel.* Geneva, Switzerland: International Council of Nurses; 2000.
59. *Guidelines on Reporting Incompetent, Unethical, or Illegal Practices* (NP-91 10M 7/94). Washington, DC: American Nurses Publishing; 1994.
60. Mahlmeister L. When cost-saving strategies are unacceptable. *Pediatr Nurs.* 1996;22(2):130–132.
61. Rushton CH, Hogue EE. Confronting unsafe practice: Ethical and legal issues. *Pediatr Nurs.* 1993;19:284–288.



# Chapter 21

## RELIGIOUS AND CULTURAL CONSIDERATIONS IN MILITARY HEALTHCARE

DAVID M. DeDONATO, MDIV, MA, BCC<sup>\*</sup>; AND RICK D. MATHIS, JD, MDIV, MA<sup>†</sup>

---

### INTRODUCTION

#### THE IMPORTANCE OF UNDERSTANDING DIVERSITY

#### RELIGIOUS CONSIDERATIONS IN HEALTHCARE PROVISION

Religious Culture's Shaping of America and American Healthcare

Religious Culture's Influence on Western Medicine

Religious Beliefs and Values of the American Patient

Some General and Specific Religious Considerations

#### CULTURAL CONSIDERATIONS IN HEALTHCARE PROVISION

A General Overview

Significance of Cultural World Views

Cultural Concepts of Health

Healing Systems

The Culture of Military Healthcare

#### WELLNESS AND ILLNESS: TWO OTHER RELIGIOUS-CULTURAL VIEWS

Judaism

Islam

#### ADDRESSING CONFLICTS ARISING FROM RELIGIOUS AND CULTURAL CONSIDERATIONS

The Potential for Conflict

Some Caregiver Guidelines

### CONCLUSION

<sup>\*</sup>Lieutenant Colonel (Retired), Chaplain Corps, United States Army; formerly, Senior Chaplain Clinician and Clinical Ethicist, Dwight David Eisenhower Army Medical Center, Fort Gordon, Georgia, and Walter Reed Army Medical Center, Washington, DC; currently, Director of Pastoral Care, Lexington Medical Center, West Columbia, South Carolina 29169

<sup>†</sup>Lieutenant Colonel, Chaplain Corps, United States Army; currently, Staff Chaplain, 18th Military Police Brigade, Mannheim, Germany, HHC 18th MP Bde, Unit 29708, APO AE 09028; formerly, Chaplain-Clinical Ethicist and Chief, Ethics Consultation Service, Walter Reed Army Medical Center, Washington, DC



Aaron Bohrod, 1944

*Military Necessity*

Pont L'Abbe, Normandy, World War II

First elements of the 90th Infantry Division saw action on D-Day, 6 June 1944, on Utah Beach, Normandy. The remainder entered combat 10 June, cutting across the Merderet River to take Pont l'Abbe in heavy fighting. Once it was secured, it was used as a staging area. This painting depicts the use of a religious structure as a communications pole to coordinate the ongoing action in the area, thus the title "Military Necessity."

Art: Courtesy of Army Art Collection, US Army Center of Military History, Washington, DC.

## INTRODUCTION

Over the past several decades, medicine has moved away from viewing the patient simply as a biological mechanism in need of “repair” and toward a more complete view of the patient as a person with a health need who is also part of a complex social system. A significant portion of who that patient “is” comes from the patient’s religious and cultural background. Most of the time, religious and cultural considerations in patient care decisions seem invisible, indeed almost “hidden,” in cases where the healthcare professionals, the patient, and his or her loved ones substantially agree about the appropriate therapy, treatment, or outcome to be sought. However, their presence may be more readily observed when the parties disagree because of differences in their religious beliefs and cultural values. It is easier to see these differences when they are succinctly stated by the participants. Therefore, this chapter will begin with a case in which there is a clear statement of these differences and what the patient’s family believes must occur as a result. By understanding the more obvious cases, the physician will, it is hoped, become more attuned to the less obvious, but nonetheless significant, situations that involve differing views regarding what is “best” for a patient.

The following case illustrates the dilemma that can occur when differing religious beliefs and cultural values clash in the patient–physician relationship.

**Case Study 21-1: What Should Leah Be Told?** Leah, an 18-year-old Israeli girl (similar to the girl shown in Figure 21-1), is diagnosed with clear cell adenocarcinoma of the vagina. Her family is ultraorthodox. She is being seen in a prominent American hospital because of its reputation as the best in the world at treating clear cell cancer. The prescribed treatment for her would be a course of radiation therapy to shrink her tumor and then a hysterectomy. Her father does not want her to be told that she will be sterile because she was recently engaged and the wedding will be very soon.

Jewish religious law will not permit a woman known to be infertile to marry, except to a man who is infertile or to a widower with children. Leah’s father says that “if she needs treatment, give it to her. We will explain the infertility later.” When told that she would need to give informed consent to the radiation treatment and surgery, her father replies, “but she doesn’t understand any of this. Look, tell her you’re taking her uterus out. Just don’t explain what it means. She won’t understand, she’s very naive.”<sup>1(pp81–82)</sup>

**Comment:** Traditional Jewish belief does not recognize patient autonomy. According to Judaic teachings, life comes from and belongs to God. Treatment that can preserve life, as in this case, is obligatory and one cannot refuse the treat-

ment. Although she is being treated in a country where autonomy is respected and informed consent is required as a condition for treatment, for Leah, exercising her autonomy by giving an informed consent might require her to reject the teachings of her religion.<sup>1(pp83–84)</sup>

Two very different concepts of what ought to take precedence in deciding to proceed with the needed lifesaving radiation and surgery are at work in this situation. One concept is that of honoring and following the patient’s religious-cultural beliefs (ie, putting the beliefs of the patient before the profes-



**Fig. 21-1.** “Mina.” Oil on canvas by Raphael Soyer, 1932. This portrait of a young Jewish woman, painted almost 70 years ago, captures the vulnerability of “Mina.” A father’s desire to protect a daughter is common to all societies, but is particularly strong in a patriarchal culture such as Judaism. Reproduced with permission from Forum Gallery, New York.



sional requirements of the physician). The other concept is that of following accepted American medical-legal-ethical practice concerning the patient's right to make an informed consent, even if that right of informed consent is alien and distressing to the patient. Although this particular dilemma is perhaps more clearly enunciated than many, it nonetheless is indicative of the ethical dilemmas in the provision of medical care in an increasingly multicultural patient base.

Medical, nursing, social work, and clinical pastoral journals have all reported and discussed an-

ecdotal accounts of ethical dilemmas faced by healthcare professionals, their patients, and family members as they all seek what they believe to be the best solution to a medical problem. Within the last few years the literature has also included discussion focused specifically on the patient's religious beliefs and cultural values in particular cases, while there has been only limited discussion of the healthcare professional's personal religious beliefs and cultural values. There has been, however, no discussion of religious and cultural considerations as they affect military healthcare specifically.

## THE IMPORTANCE OF UNDERSTANDING DIVERSITY

Knowledge of religious and cultural considerations can help all healthcare professionals to:

- realize that religiously and culturally grounded concepts, values, and interpretations differ about what are appropriate conduct and good outcomes within the therapeutic relationship;
- become aware of their own personal and professional religious beliefs and cultural values as healthcare professionals and how these values influence their perceptions of (and actions and interactions with) patients; and
- become sensitized to the specific cultural and religious values, beliefs, and actions that affect patient care decisions.

Having an awareness of the influence of religious and cultural factors in healthcare is essential to American healthcare and especially to military healthcare, given the military's worldwide deployment. A military healthcare professional will find such knowledge helpful in providing medical care to persons of a non-American or non-Western religion or culture, whether at home or in a distant part of the world. This is particularly true where religious and cultural considerations pose significant value conflicts between military healthcare professionals and patients and their families.

This chapter's discussion of religious and cultural considerations in military healthcare will explore religious considerations and cultural considerations in general, as well as examining how these

### EXHIBIT 21-1

#### DOES HEALTHCARE POSSESS RELIGIOUS VALUES THAT AFFECT PATIENT-CARE DECISIONS?

Thinkers disagree about the impact of religious values on patient-care decisions. Callahan would answer that religious values do not impact patient care, arguing that, "for all the steady interest of some physicians in religion and medicine, the discipline of medicine itself is now as resolutely secular as any that can be found in our society. It is a true child of the Enlightenment."<sup>1(p3)</sup> Geisler, however, argues that if the discipline of medicine substantially embraces secular humanism, then secular humanism's significant value orientations qualify under some definitions as a personal or corporate religious belief or creed.<sup>2(p174)</sup> Geisler argues that secular humanism, as a world view, contains distinctive value orientations that are both cultural and religious in nature. In demonstrating his position, he contrasts a traditional Judeo-Christian world view with a secular humanistic world view. In the former, there is a creator, man is specially created, God is sovereign over life, sanctity-of-life is more important than quality of life, and ends do not justify means. In a secular humanistic world view, there is no creator, man evolved from animals, man is sovereign over life, quality of life is more important than sanctity-of-life, and ends do justify means.

Sources: (1) Callahan D. Religion and the secularization of bioethics. *Hastings Cent Rep.* 1990;20(4):Suppl.2-4. (2) Geisler N. *Christian Ethics: Options and Issues*. Grand Rapids, Mich: Baker; 1989.



considerations influence the healthcare environment, especially within the context of a military deployment. As already alluded to, the difficult issue is first being aware of these differences, then responding appropriately. As Kluckhohn points out, cultural value orientations answer important human questions about the nature and purpose of man, man's relationship to nature and his fellow man, and man's time dimensions.<sup>2(p64)</sup> Religious value orientations address the same questions with an additional emphasis on a person's relationship to God.

This chapter, although at times emphasizing medicine's role in value conflicts, seeks overall to encompass all military healthcare professionals. It is neither intended to be an outlined primer of specific religious or cultural beliefs, nor an overview

of healthcare cultural anthropology, but rather describes only some of the potential conflicts posed by religious and cultural considerations. In keeping with that philosophy, this chapter discusses only briefly the dynamics of the individual healthcare professional's personal religious beliefs as they relate to patient-care decisions. Likewise, this chapter addresses indirectly the question of whether healthcare possesses religious values or beliefs that play a part in patient-care decisions. (Exhibit 21-1 explores in detail the disagreement between philosophers regarding this question.) Regarding healthcare values that are arguably "religious," this chapter discusses them and their influence on patient-care decisions as a part of the "culture" of healthcare.

## RELIGIOUS CONSIDERATIONS IN HEALTHCARE PROVISION

For a physician to appreciate others' religious and cultural values, an understanding of one's own religious and cultural roots and their influence on one's thinking is essential. Though this country, especially its military, has increasingly become multicultural in composition and pluralistic in religious belief, there is a religious and cultural tradition that has had an effect on American medicine and the ethics that define it. That tradition has been defined as American moralism, which was shaped by the Calvinist tradition brought from England by the Puritans in the 1600s and the Jansenist tradition brought from Ireland by Irish-Catholic immigrants in the 1830s.<sup>3(pp114–115)</sup>

### Religious Culture's Shaping of America and American Healthcare

The early immigrants to this country did a great deal to shape America as it is today. In order to understand these influences, it is necessary to look at religious traditions in America and how they gave rise to American moralism.

#### *America's Religious Traditions*

Calvinism, as practiced by the Puritans, professed that believers are to plunge into secular world activities with a pure heart. Calvinists believed that a clear, unambiguous perception of God's commandments and an unquestioning, voluntary dedication to their observation would protect them from contamination as they moved to subdue nature and society to Divine Governance.<sup>4(p23)</sup> Through the revival movements (Figure 21-2) fol-

lowing the American Revolution and in the post-Civil-War period, this moralism took on the task of ascertaining the sins of the community that needed reforming and saving the Western migration from barbarism. A profoundly emotional fundamentalism emerged, with overwhelming emphasis on soul-saving, personal experience, and individual prayer.<sup>5(p13),6(p120)</sup>

Jansenism, spiritually inspired by the theology of Saint Augustine in that humanity had to be kept in check by penitential vigor, is a Catholic cousin of Calvinism. Jansenists opposed "probabilism"—a rule that allowed a person whose conscience is troubled about the right course of action to choose and act on any well-founded opinion that is "certain" or, at least, "more probably" correct. Like its Protestant counterpart, Jansenist revivalism spread throughout American Catholicism in the latter 1800s.

Both traditions, though different, had in their common, recurring themes<sup>3(pp118,120)</sup>:

- insistence on clear, unambiguous moral principles, known to all persons of good faith;
- denial of the possibility of moral paradox or irreconcilable conflict of principles;
- avoidance, as much as possible, of detailed examination of exceptions to principles and rules;
- reduction of complex moral problems into simple, overarching ideals that linked together issues that, viewed from a more discerning viewpoint, appear distinct (eg, for Protestants, sex education and pornography);



**Fig. 21-2.** Converts weep and pray in this drawing of an 1836 revival meeting in the state of New York. Revival meetings encouraged individuals to repent of their sins and to work toward reforming their communities. Reproduced with permission from *LIFE, Bicentennial Issue: The 100 Events That Shaped America*. 1975; 63.

- for Catholics, contraception and abortion);
- affirmation of absolute moral principles, from which any departure must be counted as sinful, making little or no room for justifiable exceptions (although the contents of those principles varied between the two traditions);
- assertion of the Ten Commandments as dominant; and
- adherence to cherished and strictly ordered plans of life.

### **American Moralism**

What emerged from these common, recurring themes of the Calvinist and Jansenist traditions was a pervasive American moralism that:<sup>3(p121)</sup>

- emphasized continual reliance on fundamental moral principles;
- furthered the tendency to remove a moral

problem from the actual circumstances of moral action;

- declared that moral principles in themselves must be affirmed—exceptions and excuses must not be considered because such considerations would distract from the principle itself;
- maintained that antithetical categories that sought boundary systems and patterns of control would affirm order against disorder; and
- insisted on a stream of thinking that deeply believed in clear, unambiguous moral principles, the ability of common sense to grasp these principles, and the importance of the observance of these principles for the common good of the community.

Although modern America has forgotten about its moralistic sources, and “the rigidity of the Calvinist and Jansenist heritage seems to have evolved

into a vague tolerance for all but the most outrageous violations,"<sup>3(p122)</sup> Jonsen maintains, "the moralism generated by [these] deep traditions, survives in the form, if not the content of the American mentality."<sup>3(p122)</sup> The remnants of American moralism not only affect the ways Americans think today; they have greatly influenced American medical ethics as well. Jonsen believes that the original impetus for American medical ethics came from American moralism—which helped to bring the chaos of the new scientific medicine into the order of moral principle.<sup>3(p126)</sup>

Jonsen cites several examples of science's pursuit of principle. Paul Ramsey's book, *Patient as Person*,<sup>7</sup> written by a man steeped in Calvinism, is, according to Jonsen, one moralist's attempt to subjugate the new chaotic features of contemporary medical science to moral principles. Other attempts to ensure morality in science have been made by groups of individuals selected for their moral authority. For example, the Totally Artificial Heart Assessment Panel<sup>8</sup> assessed ethical and moral implications and guidelines in using implantable artificial hearts. The National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research studied the principles governing biomedical research. Their work resulted in the *Belmont Report*,<sup>9</sup> which applied bioethical principles to research activities. The President's Commission on the Study of Ethical Problems in Medicine<sup>10</sup> studied principles governing the care of the terminally ill and patients in the persistent vegetative state.

Probably the most enduring contribution that the American moralism movement has produced is "principlism"—the four principles of American biomedical ethics: autonomy, beneficence, nonmaleficence, and justice.<sup>11</sup> Only in the last two decades have other medical ethical models arisen to challenge the principle-based model. Clinical models, based on practical medical considerations, are espoused by Jonsen and colleagues<sup>12</sup> and Fletcher and colleagues.<sup>13</sup> Jonsen and Toulmin, in *The Abuse of Casuistry*, propose classical casuistry as principlism's chief opponent.<sup>14</sup> Pellegrino and Thomasma<sup>15</sup> advocate a virtue ethic that focuses on right behavior by physicians. Fry<sup>16</sup> proposes an ethic of care that requires a moral point of view of persons and establishes moral commitments that naturally emerge from context of the professional-patient relationship. (Chapter 2, *Theories of Medical Ethics*, discusses these and other models in detail.) Medicine in the United States today is based on ethics that reflects a secular fundamentalism that: (a) describes the same absolutism, same dichotomous world of

good and bad, right and wrong as seen by the moralists, but shorn of religious rationale and religious sanctions; and (b) has the same obedience to the law but without the sanctions of eternal reward and punishment.<sup>17(pp27-28)</sup>

The work of ethicists can no longer be expected to uphold the clear and unambiguous principles of American moralism. Nevertheless, there is still a tension between those who find comfort in holding to the certitude of moralism and those who realize the ambiguity that pervades many ethical dilemmas that exist at the bedside.<sup>17(p31)</sup>

## Religious Culture's Influence on Western Medicine

American moralism has not only affected the evolution of basic principles and institutions in America; it has also greatly influenced the Western world, its practice of medicine, and the development and application of medical technology. Pellegrino asserts that

the transcultural challenge of accepting what medical knowledge has to offer in light of a particular culture's values and beliefs, is vastly complicated because medical science and technology, as well as the ethics designed to deal with its impact, are Western in origin.<sup>18(p191)</sup>

Western cultures differ from other cultures in how empirical science is conducted, in what constitutes ethical behavior, and in the political systems that guide and adjudicate the practice of medicine. Military healthcare professionals, because of their role in worldwide medical deployments, especially need to be aware of these differences.

In the Western world science is both empirical and experimental. It pursues objectivity and seeks the quantification of experience. It is driven by a common desire to gather information, share that knowledge, and build on it for future study or practical use. Science is both basic and applied; basic when it seeks to understand how or why something is, applied when it seeks a solution to a specific problem. Other cultures may be less inclined to aggressively uncover nature's mysteries, less obsessed with the need for experimental verification, and more strongly drawn by the spiritual and qualitative dimensions of life.

Western ethics, especially medical ethics, is principle-based, analytical, rationalistic, dialectical, and often secular in spirit. As previously noted, the United States as a country is multicultural and plu-



ralistic. These American characteristics have increasingly influenced other Western nations. Other cultures, however, are not as multicultural and pluralistic. The ethical systems of those cultures may be less dialectical, analytical, logical, or linguistic in character, and be more sensitive to family and community consensus than to autonomy, and more virtue based than principle based.

These distinctly American characteristics, the result of both past history and current demographics, result in Western political systems that tend to be liberal, democratic, individualistic, and governed by law. The political systems in other cultures may be more attuned to authority, tradition, ritual, and religion. Some of these are more comfortable with, and more responsive to, the decentralization of decision making and more tolerant of social stratification and inequality.<sup>18(pp191-192)</sup>

Pellegrino's observation, focused at the macro-cultural level, suggests serious conflicts at the individual microcultural level. There, healthcare professionals steeped in Western healthcare cultural values interact with patients whose cultural orientations may or may not be the same. As the power and influence of Western medical science and technology expand throughout the world, the conflicts with different belief systems will only increase. With American military physicians routinely being deployed globally in military and humanitarian missions, the necessity for meaningful interaction and a developed sensitivity to different cultural beliefs is greatly increased—a need generally overlooked or at least underappreciated.

### Religious Beliefs and Values of the American Patient

Regardless of the culture, the degree of modernization, or the policies or laws of a government, religious beliefs and values strongly influence many persons' lives, both in America and abroad. One can gain a clearer understanding of a person's present behavior or viewpoint by examining his religious beliefs, both past and present. Sometimes a person's actions or beliefs are readily articulated in terms of a current religious belief. However, sometimes individuals may not be aware that the basis for their present behavior or viewpoint is a religious belief that they previously held or that influenced them earlier in life. In either situation, one may gain a clearer understanding of others by examining the religious beliefs and values that influence their behaviors, as well as the historical relationship be-

tween medicine and religion, and the little understood relationship between religious belief and health.

### Religious Beliefs and Values

Religious beliefs and values provide a framework for understanding life and defining its limits. This framework is passed from one generation to the next through religious training and ceremony (Figure 21-3). Religion helps people understand their mortality. It develops an awareness of external conditions about which they can do nothing—conditions that circumscribe their existence and must be attended to if they are to continue to exist. These are the empirical conditions needed for the development and maintenance of all humans. Religion also shapes and helps people interpret the historical and cultural circumstances in which they are born and live, as well as many things about all people as individuals. These are the character and personality traits, proclivities, and cognitive tendencies that distinguish humans from all other species.<sup>19(p127)</sup> Thus, religion describes and explains the human condition at its most fundamental level.

Religion also provides a person with a unique concept of personal identity in the fullest sense. It helps people to understand themselves and the world around them in a more complete and satis-



**Fig. 21-3.** An Orthodox Christian baptism. Father Georgii Studyonov baptizes a child in his church in southwest Moscow. Although officially banned by the former Soviet government for almost 75 years, religion remained an important part of the lives of many Russians. Ceremonies such as this one, performed here as it has been performed for centuries, help ensure the continuity of religious tradition through the most difficult of times. Reproduced with permission from *National Geographic*. Feb 1991;36-37.



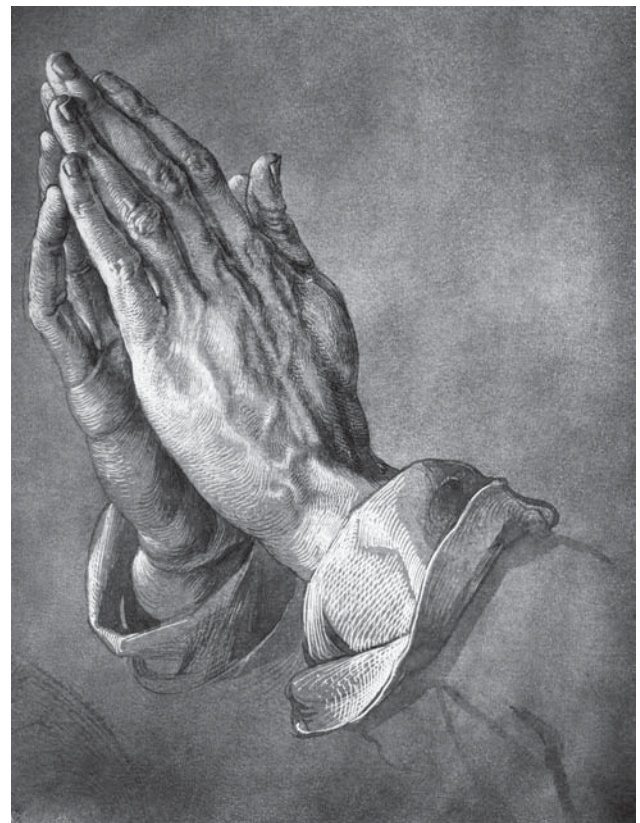
fyng way. Through religion they realize that their actions may have effects beyond their control in relation to others, the actions of those others, and subsequent events. People can, indeed must, live with others in a world that is not always friendly, is sometimes indifferent, and may be even hostile. The pervasive, supremely important integrating and reconciling function that religious beliefs and values accomplish in a person's life often gives sense to the meaning of that life—a sense that might otherwise never be found. To better understand how this “sense to the meaning of life” can influence patients in other countries, it is helpful to first explore its impact on patients in America. By becoming aware of the prevalence of religious beliefs and values in patients seen stateside, military healthcare professionals can become more attuned to variations on these common themes in other cultures.

A casual observer of contemporary American culture, with its emphasis on speed, immediate gratification, and acquisition of material goods, might be surprised to learn that Americans are a highly religious people. In studies of Gallup surveys, 95% of Americans said that they believe in God,<sup>20</sup> 72% agree or strongly agree with the statement, “My religious faith is the most important influence in my life,”<sup>20</sup> 66% consider religion to be most important or very important in their lives,<sup>20</sup> 57% pray (Figure 21-4) at least once a day,<sup>20</sup> and 40% have attended church or synagogue within the past week<sup>20</sup> (a figure that has remained remarkably constant in more than 20 Gallup surveys conducted between 1939 and 1993).

Americans also frequently participate in religious healing activities. Although the data vary somewhat from region to region, the overall picture that emerges is one of religion playing an active role in healthcare issues for a considerable portion of the American population. In a survey of 586 adults in Richmond, Virginia, in the mid-1980s, 14% of the sample attributed physical healings (most commonly viral infections, cancers, back problems, and fractures), as well as help with emotional problems, to prayer or divine intervention.<sup>21</sup> In another recent survey of 325 adults, 30% reported praying regularly for healing and for health maintenance; consulting a physician was inversely correlated with the patient's frequency of prayer and belief in the efficacy of prayer.<sup>22</sup> In a study of 207 patients in a family practice clinic, 56% reported that they had watched faith healers on television, 21% had attended a faith-healing service, 15% knew someone who had been so healed, and 6% reported that they

had themselves been healed by faith healers.<sup>23</sup> In a survey of 203 hospitalized patients in North Carolina and Pennsylvania, 94% believed that spiritual health is as important as physical health, 73% prayed daily, 58% reported having strong religious beliefs, and 42% had attended faith-healing services.<sup>24</sup>

In summary, Americans are indeed a highly religious people. Whether or not they attend church, Americans' religious beliefs and values are an integral part of who they are and what they are likely to do, or to not do. This is important for the healthcare professional to remember as he treats the patient not as a biological entity with a specific dysfunction, but rather as a whole person who is part of a complex social network. This relationship between religious beliefs and values, on the one hand, and health and healing, on the other, has not been exclusive to individuals. The relationship has existed between the professions of medicine and religion as well.



**Fig. 21-4.** A. Durer: “Praying Hands.” *Great Ages of Man: Age of Christianity*. Prayer, a central tenet of many religions, is increasingly being recognized as an important aspect of health and healing. Reproduced with permission from Corbis, Inc.

### ***The Historical Relationship Between Medicine and Religion***

Medicine and religion have worked hand-in-hand in the process of healing for thousands of years because suffering is universal and mysterious. Suffering necessitates healers to witness, understand, explain, and relieve that suffering.<sup>25</sup> These medical and religious practitioners have generally enjoyed an important and respected role in society. In ancient societies (as well as in some contemporary primitive societies), illness was perceived as primarily a spiritual problem. Religious and medical authority was often vested in the same person (eg, an Aaronic priest) who might himself become an object of worship (eg, Imhotep, Asclepius, Jesus Christ). From the early Christian era through the Reformation, the linkage between medicine and religion remained close. The first hospitals were founded in monasteries, and the missionary movement linked physical healing with spiritual conversion.

By the 17th century, challenges to church authority and the rise of empirical science created rifts between medicine and religion. Science claimed the body (and later, the “mind,” or cognitive processes) as its domain, while religion held onto the soul. As science advanced the knowledge of the heretofore unknown, condemnatory critiques of religion arose: “the opium of the people”<sup>26</sup> (Marx), “a universal obsessional neurosis”<sup>27</sup> (Freud), and “equivalent to irrational thinking and emotional disturbance”<sup>28</sup> (Ellis). Early Western modern science, in its belief that it could ultimately solve all health problems, appeared to have supplanted religion. However, by the late 20th century, a growing disillusionment with modern science’s limitations coupled with more holistic concepts of health and suffering opened up the possibility of a rapprochement between medicine and religion. Nowhere is this rapprochement seen more clearly than in the willingness of scientists to investigate those religious beliefs that previously had been dismissed as irrational, self-fulfilling prophecies.

### ***Documented Medical and Psychological Benefits of Religious Beliefs***

A body of research correlates religious belief with improved physical, emotional, and behavioral well-being, making a strong case for the incorporation of religious and spiritual values into medical treatment regimens. Research has examined areas as diverse as substance abuse, grief reactions, general health, general well-being, and survival rates for

various illnesses. In each area, religion has been found to have a profound and positive effect for those who believe. These research studies have been carefully constructed and have withstood the rigor of the scientific research model, including statistical analysis.

The question of how religious commitment might affect substance abuse has been the subject of several studies. For example, of 1,014 males matriculating between 1948 and 1964 at Johns Hopkins Medical School, 13% met criteria for alcohol abuse. The strongest predictor of subsequent alcoholism during medical school was a lack of religious affiliation, followed by regular use of alcohol, past history of alcohol-related difficulty, non-Jewish ancestry, and a number of other criteria.<sup>29(p332)</sup>

Of 248 men (87% Mexican-American) with opiate addiction treated at a Public Health Service hospital from 1964 to 1967, 11% subsequently enrolled in a long-term religiously based program. These patients were significantly more likely (45% vs. 5%) to abstain from opioids for 1 year after the program.<sup>30(pp74–75)</sup> The researchers note that “[f]rom the standpoint of attractiveness or acceptability to opioid users, however, religious programs do not appear especially effective. Admissions to these programs equal only 3% of all admissions to treatment and only 11% of all subjects in the study.”<sup>30(p75)</sup> They did add that “[a]lthough religious programs seem to attract only a small minority of opioid users, they are an effective alternative to conventional therapies for some.”<sup>30(p80)</sup>

There were 2,969 participants in the National Institute of Mental Health Epidemiologic Catchment Area survey (1983–1984) in North Carolina, which lasted 6 months. The researchers found that “those who attended church at least weekly ... [had a] likelihood of abusing or being dependent on alcohol [that] was less than one-third (29 percent) the rate among those who attended less frequently.”<sup>31(p229)</sup> “[T]hose who prayed and read the Bible at least several times a week ... [had a] likelihood of having had an alcohol disorder in the past six months [that] was less than half (42 percent) the rate for the rest of the sample.”<sup>31(p229)</sup> The researchers concluded “[t]he data presented here do not lend themselves to interpretations about the cause of the relationships between religious variables and alcohol use, for two reasons. One, the data are cross-sectional in nature, and two, although our analyses were controlled for a number of basic demographic and health variables, it was not possible to account for the full range of variables in which religious behaviors and alcohol use may be enmeshed.”<sup>31(p231)</sup> Nonetheless, the data raise interesting questions for fur-

ther research.

Another area of interest to researchers was that of adjusting and coping during and after long-term terminal illness of a loved one. In a study of 145 parents of children who had died of cancer, 80% reported receiving comfort from religion during the year after the child's death and 40% reported a strengthening of their religious commitment during that year,<sup>32(p226)</sup> which was positively associated with better physiological adjustment, emotive adjustment, and perceived helpfulness of religion.<sup>32(p233)</sup> The study authors concluded: "Basically, it appears that religious commitment is both a cause and a consequence of the process of adjustment to bereavement. Both segments of the analysis revealed a stronger religious commitment arising out of an individual's attempts to cope with the death. ... With regard to religious commitment as a determinant of adjustment, the qualitative segment of the analysis found that the likelihood that parents would derive comfort from the theodicy of purposive death was increased if they also displayed an especially strong religious faith."<sup>32(p237)</sup>

In a 1985 study of 65 low-income elderly women who had one or more stressful medical problems within the previous year, the most frequent coping responses for handling medical illness were prayer, selected by 59 of the respondents (91%) and "thinking of God or religious beliefs," selected by 56 of the respondents (86%).<sup>33(p44)</sup> In addition, in a 1988 survey of 62 caregivers of Alzheimer's disease and cancer patients, religious faith was positively associated with a positive emotional state and negatively associated with emotional distress.<sup>34(p334)</sup>

Many religions worldwide believe that the prayer of others, as well as one's own beliefs, can aid in overcoming many difficulties, including health problems. Research supports these beliefs. Religious and spiritual commitment and belief is indeed correlated to physical symptoms and general health outcomes. In a 1992 study of 172 students enrolled in Christian faith groups and 127 unaffiliated student controls, the faith group had statistically significant better perceived health; more positive affect; higher satisfaction; fewer emergency room, physician, walk-in clinic, and dentist visits; and fewer hospital days than the unaffiliated group.<sup>35(p68)</sup> Among 1,344 outpatients in Glasgow, Scotland, those who participated in a religious activity at least monthly were less likely to report physical, mental, and social stressors associated with daily living after controlling for age and gender.<sup>36(p684)</sup> In addition, in a prospective study of 2,812 elderly persons in New Haven, Connecticut, religiosity was

inversely related to subsequent disability and directly related to improved functional ability.<sup>37</sup>

Religious and spiritual commitment and belief also have positive correlation to one's perceived general well-being and quality of life. Among 560 telephone survey respondents in Akron, Ohio, general life satisfaction was strongly correlated with religious satisfaction, closeness with God, prayer experience, frequency of church attendance, and church activities.<sup>38(p267)</sup> Among 2,164 persons in the National Quality of Life Survey, feelings of being worthwhile were significantly related to the importance of faith,<sup>39(p300)</sup> church membership,<sup>39(p302)</sup> and church attendance.<sup>39(p302)</sup> Using the same data from the National Quality of Life Survey, satisfaction from religion was found to be highly correlated with marital satisfaction, and satisfaction with family life, as well as general affect.<sup>40</sup> And, among 997 respondents to the 1988 General Social Survey, church attendance was positively correlated with life satisfaction.<sup>41(p86)</sup>

Finally, a series of studies examined the effects of religious and spiritual commitment and belief on survival. The largest of these studies surveyed 91,909 individuals who lived in Washington County, Maryland. The researchers compared persons with various diseases who had died of those diseases and then examined the frequency of church attendance (once or more a week vs. less than once a week) among the total group, over a 3-year period. The study results found that those who attended church once or more per week had 74% fewer deaths due to cirrhosis, 56% fewer deaths due to emphysema, 53% fewer suicides, and 50% fewer deaths due to coronary artery disease than those who attended less than once per week.<sup>42(p669)</sup> In a prospective cohort study of 4,725 individuals in Alameda County, California, those who were church members had lower mortality rates than others independent of socioeconomic status and health behaviors (eg, smoking, drinking, physical inactivity, obesity).<sup>43(p189)</sup> In a retrospective cohort study of 522 Seventh Day Adventist deaths in the Netherlands from 1968 to 1977, Adventists were found to have an additional life expectancy of 9 years for men and 4 years for women when compared with the general population. Adventists had lower rates of overall mortality (45% of expected), neoplasms (50% of expected), and cardiovascular diseases (41% of expected).<sup>44(pp456-457)</sup> Mormons also enjoy unusually good health, with cancer and heart disease rates less than one half those of the general population. Furthermore, the rate of cancer varies inversely with the degree to which the individual adheres to church teaching



(including dietary restrictions) and participates in church activities, with highly religious Mormons experiencing one half the rate of cancers of less adherent members of the faith.<sup>45(pp252,256)</sup>

There are other studies that show equally impressive relationships between persons' religious and spiritual beliefs and their physical, mental, and emotional well-being. These studies show that, regardless of a particular patient's diagnosis or prognosis, to ignore or discount a patient's religious or spiritual belief could omit a key element in a treatment regimen that could enhance returning that patient to a healthy state.

### **Some General and Specific Religious Considerations**

As American healthcare professionals provide care for an ever-widening spectrum of patients, it has been shown that one can expect to encounter patients with varying degrees of religious belief that influence their healthcare values. This religious worldview may often be the framework for persons' self-worth, their view of the outside world, and their interaction with key people and situations in their lives. Developing an appreciation for the religious component of this framework may be a valuable key to understanding a patient's approach to health, illness, and how the patient will cope with medical treatment with all of its complexities.

### **Major Dimensions of Religion**

Faulkner and DeJong<sup>46(p354)</sup> propose five major dimensions of religion, each of which can be of unique significance to one's health and illness. These are:

- (1) **Experiential:** The religious person will at some point in life achieve some direct knowledge of ultimate reality or will experience religious emotion (be "born again," "come into full knowledge," and be "slain in the spirit" are terms basic to fundamentalist Christian denominations).
- (2) **Ritualistic:** Religious practices that are expected of followers include worship, prayer, sacraments, and fasting (Roman Catholics, Lutherans, Episcopalians).
- (3) **Ideological:** These are the set of beliefs to which a religion's followers must adhere in order to call themselves members.
- (4) **Intellectual:** The specific acts, beliefs, or explanations that members are to be in-

formed about are called many things, to include: the basic tenets, the sacred writings, and the scriptures. These are written down, and available for study and discussion (eg, Christians—Bible, Jews—Torah, Muslims—Koran).

- (5) **Consequential:** Religiously defined standards of conduct are religious tenets that specify what followers' attitudes and behaviors should be as a consequence of their actions (eg, the Biblical Ten Commandments, Five Islamic fundamentals, Jewish social and religious laws).

### **Expression of Religious Beliefs**

There are many ways in which religious beliefs are expressed or demonstrated. Among these are prayer, holy days, religious symbols, garments, and dietary practices.<sup>47</sup> Although the specific guidelines for these expressions may vary from religion to religion, they all are important aspects of religious beliefs. And, as the preceding discussion of the documented medical and psychological benefits of religion has so aptly demonstrated, these expressions are a valuable adjunct to the overall healing process. By understanding and accepting the expression of these beliefs, the healthcare staff can also be aware of those expressions that may be detrimental to the health of the patient, especially certain dietary practices. Again, the emphasis is on the patient in a social context, to include religious beliefs and their expression.

**Prayer.** Prayer can be a great source of emotional strength and comfort for those who are ill and also for their family and friends. Prayer can be formal, following a specified liturgy (eg, Roman Catholic, Episcopalian) or as a tenet of faith according to set rules. Devout Muslims must pray to Mecca, a holy city in Saudi Arabia, five times a day. Traditionally, they pray on a special prayer rug placed on the floor and facing in the direction of Mecca. Many Muslims in this country do this in the privacy of their homes or away from the public. In the case of a devout Muslim who is hospitalized, it is not unusual to have his prayer rug in the room so that he can engage in this ritual at the prescribed times. Prayer can also be informal or spontaneous, such as those that are offered at the patient's bedside by members of visiting clergy. Many devout Christians (eg, African-Americans, fundamentalist-believers) view religion as an essential and integral part of life. They believe that God, the source of good health and healing, can cure disease and heal injury. To receive



this healing they must pray and have the faith that these prayers will be answered. This may also involve the presence of family members and friends in a prayer circle in the patient's hospital room or in the hospital chapel. It is not unusual for them to ask their healthcare professionals to join them in prayer, because they view their healthcare professionals' talents and skills as being under God's guidance and use. Health care professionals should be sensitive to these expressions of faith.

**Holy Days.** Holy days, which vary from religion to religion, are days devoted to participating in religious activities while often limiting nonreligious activities. Thus, depending on the religion, holy days may be days that are not well-suited to routine medical procedures, or may be problematic in the treatment of certain diseases. For Muslims, Ramadan (a period of 30 days around February or March) requires periods of fasting from sunup to sundown. For many Orthodox Jews, the Sabbath (from sundown Friday to sundown Saturday) is a time to spend with family and to worship God. On the Sabbath, work of any kind is prohibited, including driving, using the telephone, handling money, and even pressing an elevator button. The only law that is higher than observing the Sabbath is the law that requires everything possible be done to save a life. As these two examples demonstrate, there is a great deal of diversity between various religions in their holy days. It is obviously not possible for healthcare professionals to know every separate religion and its specific holy days. However, by being aware that there are various holy days for different religions, with specific restrictions, healthcare professionals can better plan with their patients the best course of action for treatment. This process need not consume a great deal of time, but it can do a great deal of good for the patient.

**Religious Symbols.** In hospitals, one of the admission procedures is often the removal of all personal items of value from patients, including jewelry, watches, and so forth, for safekeeping. Many diagnostic tests require the removal of any items that might interfere with the procedure. In the event of a surgical procedure, all items are removed from the patient's body before the operation to ensure a sterile environment for the patient (ie, jewelry) or to prevent a medical problem (ie, removal of false teeth). However, a number of religious faiths have symbols that have special meaning to those who wear them. Roman Catholics may carry or wear a rosary or wear a medallion. Jews may wear a Star of David on a necklace around their necks. Christians may wear a cross. Hindus may wear sacred threads

around their necks or arms. Native-American Indians may carry medicine bundles. Mexican children may wear a bit of red ribbon. Mediterranean peoples may wear a special charm (eg, mustard seed in a circle or a ram's horn) or a chain. Healthcare professionals unfamiliar with these religious symbols should learn about their significance to the patient. If, because of medical procedures, the symbol must be removed, a full explanation of the reason may need to be given to the patient. Sometimes an accommodation can be made to keep the symbol in the patient's possession or close by so that the patient can derive the symbol's benefit.

**Garments.** At the same time that items of value are placed in safekeeping for the patient, the patient is also told to change into a hospital issued gown after completely removing all street clothing. However, some religions have prescribed particular garments for wear by their believers. Men of certain Jewish sects wear a prayer shawl (tallit) underneath their outer garments, though more than likely this garment is worn as an outer garment only when prayer is offered. A Mormon adult wears a special type of "garment," which resembles short-sleeved long underwear that ends just above the knee. Usually the garment may be removed to facilitate care in a hospital, but some Mormons, particularly the elderly, may not wish to part with the garment, which symbolizes covenants or promises the person has made with God and signifies God's protection. Where complete removal is not agreed to, it may be possible to adjust the positioning of the garment to allow medical care while still addressing the patient's religious beliefs.

**Dietary Practices.** Of all of the religious expressions, dietary practices are of the greatest concern to the medical professional. Whereas the other religious expressions generally only affect the delivery of patient care, some dietary practices affect patient health and outcome. Having noted that, it is important that the healthcare professional distinguish between those practices that require modification of hospital routine and those that are hazardous to patient health. For instance, both Muslims and Jews are forbidden by their religions to eat pork. This prohibition also extends to many foods that contain pork products such as ham or bacon fat. These prohibitions can be readily accommodated by the dietetic staff. Other foods can be dangerous. Dates, a favorite food of many Arabs, are very high in potassium, which must be strictly limited for patients suffering from renal problems. In some Arab countries, however, food deprivation is considered a precursor to illness, and to deprive an Arab of dates

would be viewed as helping to bring on an illness. Orthodox Jews, following kosher dietary practices, will not eat pork, shellfish and non-kosher red meat and poultry. Mixing meat and dairy products, either in the same meal or by using the same plates, pots, or utensils for both, is prohibited. Nonreligious food restrictions can also create problems. Some ethnic groups will eat only hot or cold foods, depending on the seasons. The hot and cold are qualities, not temperatures. These foods, which make them “cold” inside their bodies in the winter or “hot” inside their bodies in the summer, are to be avoided if these patients are to develop appetites. It is best to ask about food preference at admission so that arrangements can be made either for the dietary staff to meet these dietary practices or for family members to bring in the appropriate foods. Also, each ethnic group has their own food preferences while other ethnic groups cannot tolerate certain foods. Many Asians like rice with every meal but are lactose intolerant, as are many African-Americans and Native Americans. Asian diets are gener-

ally very high in sodium but low in fats. Mexican-Americans tend to use a lot of salt and fats in their cooking. Either of these ethnic cooking styles could be problematic for hypertensive patients. Thus it is important to explore the dietary practices of all patients, accommodating those that can be, and explaining the medical reasons for those that cannot be accommodated during the hospital stay. If the healthcare professional has been open and accepting of these various religious expressions, the patient is more likely to respond when queried about specific dietary needs and more likely to cooperate with hospital dietary staff. However, if members of the medical staff, including the attending physicians, have indicated that the patient simply has to eat whatever the hospital provides, and brush off any protests to the contrary, there is the distinct possibility that family members will sneak in foods that may indeed be harmful to the patient. By understanding that the patient has religious beliefs, and religious expressions, the benefit of these beliefs can be incorporated into the healing process for the patient.

## CULTURAL CONSIDERATIONS IN HEALTHCARE PROVISION

### A General Overview

Culture can be viewed as all of those parts of life that surround and influence people from the time they are born. It is a vital part of why and how persons make decisions. A culture has four basic characteristics<sup>48(p10)</sup>: (1) it is learned from birth through the processes of language acquisition and socialization; (2) it is shared by all members of the same group; it is this sharing of cultural beliefs and patterns that binds people together; (3) it is an adaptation to specific conditions related to environmental and technical factors and to the availability of natural resources; and (4) it is a dynamic, ever-changing process, passed from generation to generation.

### Significance of Cultural World Views

Every society has a basic value orientation that is shared by the bulk of its members because of early common experiences. In general, the dominant value orientation, or world view, of each culture guides its members to find solutions to the following five basic human problems.<sup>2(pp67-69)</sup>

- (1) *What is man's basic innate human nature?* Is it good, in that it is unalterable or incorruptible? Is it mixed with combinations of good and evil where lapses are unavoid-

able but self-control possible? Or is it evil, in that it is unalterable, or perfectible with discipline?

- (2) *What is man's relationship to nature?* Is there a sense of destiny, in that persons are subjugated to nature, where fatalism and inevitability guide their endeavors? Is it viewed as mastery, in that the natural forces are to be overcome and be put to humankind's use (American)? Or do people and nature exist together in harmony as a single entity (eg, Native Americans and Asians, who are more likely to ignore preventative medical measures)?
- (3) *What is man's significant time dimension?* Is it centered on the past, where focus is on ancestors (Chinese) and traditions (British)? Is it oriented to the present, in that little attention is paid to the past and the future is considered vague and unpredictable (Hispanic and African-Americans)? Or is it future-oriented toward progress and change, lacking content with the present and viewing the past as “old-fashioned” (Americans and some Western cultures, who are more likely to stress preventative medicine)?
- (4) *What is the purpose of man's being?* Is it focused on being—a spontaneous expression

- of impulses and desires—or on doing—an active striving and achieving, a competition against externally applied standards?
- (5) *What is man's relationship to his fellow man?* Is it lineal, stressing continuity through time, heredity and kinship ties, and an ordered succession (British)? Is it collateral, where group goals and family orientation are the primary focus (Haitians)? Or is it focused on the individual, with personal autonomy and independence as primary, authority limited, and individual, not group, goals dominant (Americans)?

It is important to recognize that all societies are made up of collections of individuals who reflect to one degree or another the shared cultural heritage, or world view, of the group. Of course, individual variation within any cultural group is normal. One must be careful not to stereotype an individual simply because he comes from or belongs to a particular society or culture. Individuals share some part of the cultural heritage of their group, but never all of it, and they can interpret and apply social, cultural norms in a variety of ways, especially when norms are in conflict with each other. Individuals may evade norms, particularly norms that are weakly enforced. In addition, some norms are not learned by all members of a society.

### Cultural Concepts of Health

The definitions of health and disease in any society are culturally influenced. When individuals become aware of a sign or symptom that indicates illness, they must make some choice about care, including the decision to perhaps not seek care. The choice is often based on the cultural characteristics and definitions of health, illness, and disease that these individuals accept as their own. As noted in the introductory comments to this chapter, when these concepts of health are similar to those of the healthcare professional, they receive little outward notice. The more these concepts differ from those of the healthcare professional, however, the more they are likely to be perceived as strange or not of relevance to the medical situation at hand and its successful resolution. For that very reason, this discussion of cultural concepts of health will begin with voodoo—a belief system that many medical personnel might find to be beyond their own cultural concepts of health.

In Haiti, voodoo priests and priestesses treat a wide variety of problems. Clients come to them for

help with love, work, and family problems as well as sickness. The voodoo practitioner's first determination is whether the problem "comes from God." If so, it is seen as "natural"—is meant to be, is unavoidable, and is for the greater good of the person. No priest or priestess will interfere in such a case. Only "supernatural" problems—those not part of the natural order or likely to have been caused by the spirits—will be appropriate for voodoo treatment.<sup>49(pp50–51)</sup> Many Haitian patients receiving Western medical care will share the cultural concepts of voodooism. Therefore, those providing their medical care need to understand how these concepts will influence the patient in terms of the type of care the patient is willing to receive and how that patient may view that care. To ignore these issues may result in the patient being offered or given a treatment that is not allowed within this culture.

Another example of a cultural concept of health and healing that differs from Western medicine involves the Chinese concepts of *yin* and *yang*. The *yin* force in the universe represents the female aspect of nature and is characterized as the negative pole, encompassing darkness, cold, emptiness. The *yang*, or male force, is seen as the positive pole and represents fullness, light, warmth. An imbalance of *yin* and *yang* forces creates illness, which is interpreted as an outward expression of disharmony. Going in and out of balance is seen as a lifelong natural process; accordingly, no sharp line is drawn between health and illness. Both are seen as natural and as part of a continuum.<sup>50(pp109–110)</sup> *Yin* and *yang* conditions are assigned to body organs and health conditions. *Yin* is associated with cancer, pregnancy, menstruation, kidney, liver, lungs, and spleen; *yang* with constipation, hangover, hypertension, toothache, bladder, gallbladder, intestines, and stomach.<sup>51</sup> Thus, in these situations, it is important that the medical professional and the patient discuss these cultural differences to arrive at the best course of treatment for the patient.

What a person recognizes as illness or disease is also culturally influenced. Most Americans believe that "germs" (biological processes) cause disease. Not all cultures share that belief. Other causes of disease include: (a) upset in body balance (Asia, India, Spain, Latin America), (b) soul loss (some African cultures), (c) spirit possession (Haiti, Ethiopia), (d) breach of taboo (Haiti, Caribbean cultures), or (e) object intrusion (some African and Pacific cultures). Again, the healthcare professional must be aware of these cultural differences in general, and determine whether or not the patient holds these non-Western beliefs.

## Healing Systems

People throughout the world use several types of healing “systems,”<sup>52</sup> to include those found in the popular sector, the professional sector, and the folk sector. The popular sector consists of lay people who typically activate their own healthcare by deciding when and whom to consult, whether or not to comply, when to switch treatments, whether care is effective, and whether they are satisfied with the quality of care they have received. Individual, family, social, and community networks often provide healing support in this type of healing system. The professional sector consists of any professional healing group (physicians, osteopaths, chiropractors, homeopaths, nurses, pharmacists), or other healers (such as traditional Chinese medical healers, or the practitioners of Ayurvedic medicine found in India). It is the folk sector that is of greatest import to the subject of this chapter, for it is this sector to which many patients turn for help. A mixture of many components, including all nonprofessional, nonbureaucratic specialties, comprise the folk sector. These components are subdivided into secular (eg, fortune tellers, astrologers) and sacred (eg, priests, shamans) categories.

Western medicine’s adherence to a rational scientific-based healing tradition is in fact a minority view in comparison with other cultures around the world. There is, within Western medicine, an “etiology of disease,” which adheres to a scientific or biomedical health paradigm by holding that physical and biomedical processes can be studied and manipulated by humans and the use of a wide range of medical technology. The majority of world cultures advocate more non-traditional modes of healing.<sup>53</sup>

Holistic health paradigms hold that the forces of nature must be kept in natural balance or harmony. Practitioners of organic healing and medicine use drugs, surgery, and diet to treat traumatic injuries and certain pathological conditions. Nonorganic means use semimystical or religious practices to influence the patient’s mind and thereby cure certain specified physical or mental states. Religious and spiritual healing can range from scriptural-based faith healing that is found in a number of American fundamentalist religious denominations to the magico-religious health paradigms found in Haiti and many African cultures where supernatural forces dominate. These paradigms differ greatly from the scientific or biomedical health paradigm of Western medicine with its focus on the “etiology of disease.”

## The Culture of Military Healthcare

American civilian and military healthcare are intimately intertwined. Indeed, military healthcare derives much of its culture from civilian healthcare. American civilian medical and nursing schools train most military doctors and nurses. The same professional standards usually govern both civilian and military healthcare practice. American military hospitals voluntarily comply with accrediting standards of the Joint Commission on the Accreditation of Healthcare Organizations. And, although military healthcare has long been “managed care,” it isn’t unique—civilian managed care organizations are increasingly providing America’s healthcare.

### *Mixed Agency in Military Healthcare*

The military healthcare professional wears two hats as a member of two cultures—civilian healthcare and the military. In both professional arenas, the cultures are highly structured, routinely demand more than minimal personal sacrifice of their members, and require their members to maintain high standards of personal and professional conduct. Ironically, one culture (medical) aims to preserve life, while the other (military) stands ready to take lives (arguably, to protect and preserve other lives).

Military healthcare differs from its civilian counterpart because of unique differences in the military’s culture. For example, military rank structure creates unique power issues among military professionals and patients. Unlike civilian patients who can pursue legal causes of action against their care givers, military service members are prohibited by federal law from suing the government in response to failed care. Indeed, sometimes a military service member’s medical decision-making ability is severely restricted, such that failure to consent to a medical procedure may mean immediate employment termination.

Military healthcare providers have both a peacetime and a wartime mission. Peacetime missions include providing healthcare to service members and their authorized dependents as well as operations other than war, such as humanitarian missions (eg, Hurricane Andrew, Somalia) or a multinational peacekeeping mission (eg, Bosnia). Wartime missions include providing healthcare for US and allied service members, enemy prisoners of war (EPWs), and often civilian populations indigenous to the war’s location (Figure 21-5). The provision of wartime healthcare is governed by the Geneva



Conventions. Given the requirements of international law and the military's readiness and war-fighting goals, military healthcare's obligations and responses to patients can vary greatly, differing perhaps from civilian triage. Thus, for example, prioritization based on the Geneva Conventions or the principles of battlefield triage, which emphasize military mission, suggests potential differences from civilian mass casualty triage principles.

Values like courage or integrity that are deeply imbedded within military culture suggest potential differences from civilian healthcare when those military values encounter healthcare values like relieving suffering or therapeutic privilege. Although these norms and character attributes are observable in civilian healthcare, it is doubtful that they are, on the whole, as pervasive there as in the military context.

### *Major Subcultures in Healthcare*

Although the medical healthcare team functions as a team, there are several subcultures within healthcare. Understanding these subcultures helps to facilitate effective communication and lessen misunderstandings and tensions between the various healthcare professionals.

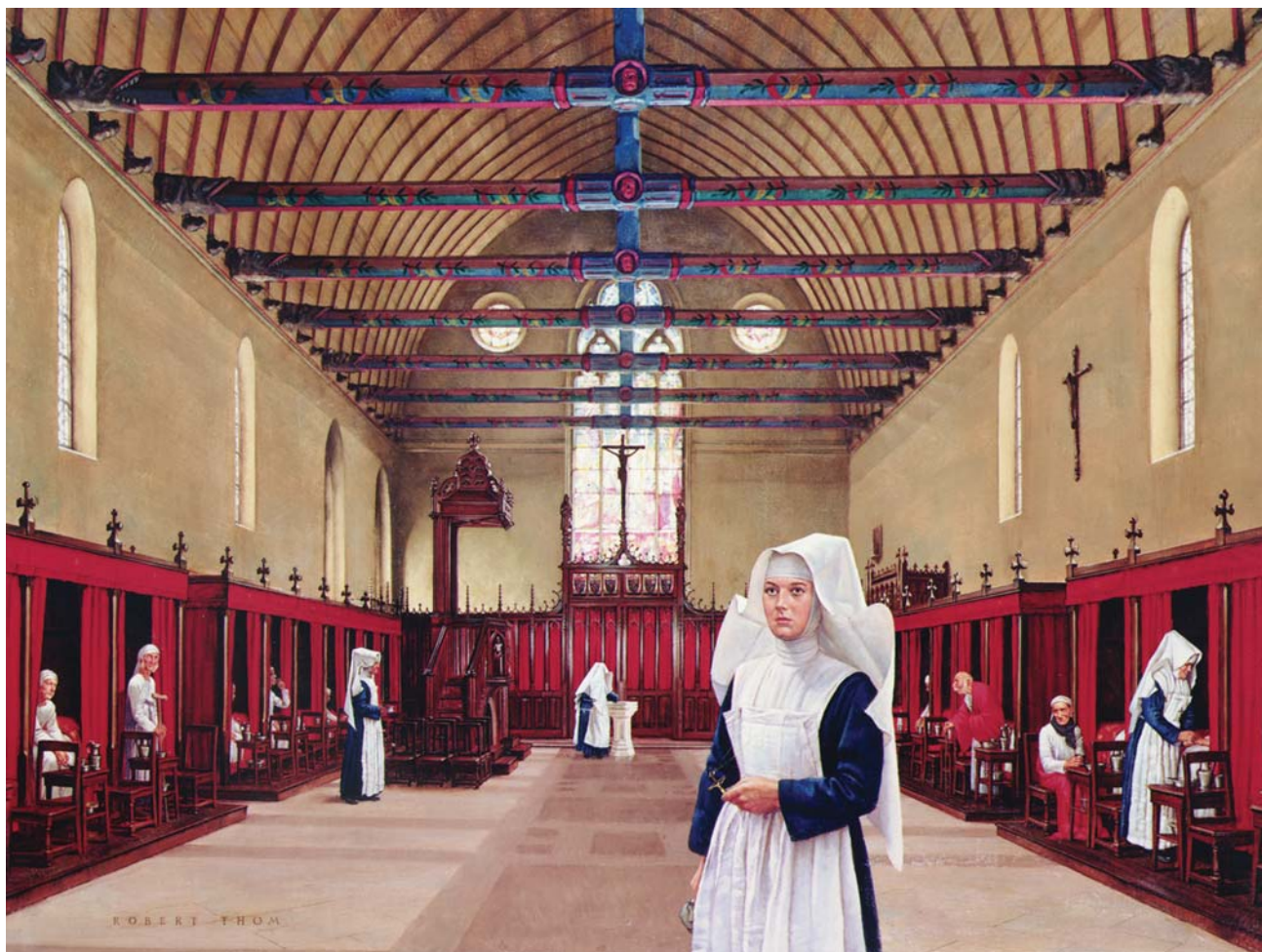
**Medicine and Nursing.** Medicine and nursing (Figure 21-6) are healthcare's most easily perceived subcultures. Major differences have existed between the two throughout the centuries and continue to this day. These differences suggest significant po-

tential for conflicts of values. The classic and parochial explanation, "doctors cure while nurses care," only begins to explain the potential conflicts. One need only briefly examine the language each profession uses to discuss ethical problems to observe the significant potential for conflict between doctors and nurses. For example, in a study of Western-medicine-trained healthcare professionals, Scandinavian doctors and nurses were asked to give their responses to ethically difficult clinical cases. Doctors' response themes included: disease, scientific knowledge, distance, paternalism, preserving life, opportunism, power, survival, and feeling isolated as an individual. Nurse response themes included: health and daily life, experiential knowledge, closeness to the patient, quality of life, pessimism, powerlessness, death with dignity, and being together with colleagues.<sup>54</sup> The study demonstrates radically different professional value perspectives between medicine and nursing. In addition, medicine and nursing lack internally homogeneous values within themselves individually. Doctors are far from agreed about medicine's ends. The current physician-assisted suicide controversy involves major debate about medicine's ultimate ends (eg, patient autonomy and relieving suffering vs. human health and wholeness) and dispels the notion that medicine is a homogeneous culture. The same is true for the nursing profession, which is currently debating the meaning of "caring"—nursing's very heart—in the context of increased patient rights, enhanced technology, fewer players in "the doctor-nurse game,"<sup>55,56</sup> feminist concerns, and similar issues.

**The Culture of Physicians.** In his article, "Cultural Influences on Physician Communication in Healthcare Teams," Cali points out that physicians learn certain cultural values during their medical training.<sup>57(pp23–25)</sup> They learn to value scientific objectivity while discounting the importance of emotional well-being or expression. Medical students are expected to "act like a doctor," and use of medical jargon leaves no room for student objectivity. The acquisition of knowledge is above all other priorities. Emotional responses are to be handled in private. Beginning with the drive to gain admission to medical school, a professional omnipotence is developed. If successfully admitted, the new student learns that he or she is "set apart" from those unable to enter medicine's inner sanctum. Physician instructors encourage and reinforce the drive to excel in medical school and to impress others with knowledge and mastery of facts. Medical students are taught to acknowledge that mistakes will



**Fig. 21-5.** The 5th Mobile Army Surgical Hospital (MASH), a US Army field hospital, at Ad-Damman, Saudi Arabia, during the Persian Gulf War (1990–1991). Artwork by SFC Sieger Hartgers. Courtesy of the US Army Center of Military Art.



**Fig. 21-6.** Robert Thorn's recent painting depicts a religious nurse in a medieval hospital. These nurses were the forerunner of today's highly trained nursing professionals. The nurses were involved in the lives of their patients 24 hours a day, beginning the model of care persisting until modern times. Courtesy of Parke-Davis, Division of Warner-Lambert Company.

be made, but not to dwell on them and to develop a protective sense of omnipotence and omniscience (Figure 21-7). The use of medical jargon, class differences, and the withholding of information further enhance physician power. Part of this withholding of information occurs when physicians limit their availability to others. This causes other healthcare staff to spend a considerable amount of time tracking the physician's day-to-day patient management. In these situations, time with the physician readily becomes a prized commodity.

As with most skilled professionals, physicians develop heroes in their own profession. The recognition of admirable traits in other physicians occurs gradually. Often a physician is admired for a particular expertise (eg, possessing technical proficiency, achieving success with particular types of

cases, or demonstrating genuine compassion). The medical student often builds a personal repertoire of skills and values by selecting fragments of heroism recognized in these established physicians. Medicine also has its own rites of passage. For example, young physicians are taught to subordinate personal comforts and to endure a large degree of hardship. "House Officer Stress Syndrome," which involves episodic cognitive impairment, chronic anger, pervasive cynicism, family discord, depression, suicidal ideation and suicide, and substance abuse, is quite prevalent.<sup>58</sup>

Even physician communication patterns are culturally learned. Minimizing or trivializing experiences helps the physician maintain an emotional distance and protects the sense of omnipotence. An example of this is found in a feature of life among





**Fig. 21-7.** This 19th century drawing of a physician holding death at bay reflects a cultural view of the role of physicians. Medical students tend to be indoctrinated into a culture of war, in which they battle death rather than focusing primarily on the needs of the patient. Reproduced with permission from Corbis, Inc.

surgeons called “the horror story.” These moral parables, so-to-speak, are “an element of the oral culture of medicine that remind all that healing is a difficult business that must always be done with care.”<sup>59(p103)</sup> These stories are at times somewhat humorous with actions set in the past at an exact time that no one can recall and the participants in the story are ones whose names cannot be recalled. They usually come in two forms: the cautionary tale (drives home the need for caution, care, and completeness) and the story that communicates the shared difficulties that all surgeons face.<sup>59(pp103–104)</sup> Naming and humor shields physicians from the awesome encroachments of suffering, death, and powerlessness. It doesn’t take long for the physician to learn how to control situations through communication behavior.

**The Subculture of Managed Care.** Four metaphors embody the meaning of American healthcare: (1) the ministry of healing, (2) the war against disease, (3) the defense of patients’ rights, and (4) the newest metaphor—“healthcare as an industry.”<sup>60</sup>

Together they describe a culture rich in tradition, ripe with change, and filled with potential for increased conflict among the basic values undergirding each metaphor. The potential for the greatest conflict stems from the “healthcare as an industry” metaphor, particularly the burgeoning industry of managed care.

Under managed care, the doctor balances patients’ interests against one another in allocating limited resources among them with one clear objective—to cut costs. Bonuses and fee withholds encourage and enforce the physician’s cost-consciousness. Thus, patients’ needs compete directly with the doctor’s financial interests,<sup>61(p331)</sup> with the result that managed care creates major potential conflicts within healthcare with two of healthcare’s four metaphors—the physician as benevolent healer and the patient’s rights.

Managed care may also be viewed as part of a larger healthcare subculture—health services delivery, or healthcare administration—a subculture with values that routinely conflict with healthcare’s

traditional clinical subcultures. Consider its values interaction with traditional physician values. Managerial values like total quality management, group activity, process focus, and cooperation are at odds with traditional physician values like professional autonomy, self-reliance, and independence. Regarding

patients' religious or cultural values, the culture of managed care with its cost-cutting focus may be less open and responsive to tailoring healthcare to an individual patient's religious or cultural values, particularly when honoring the patient's values costs more.

## WELLNESS AND ILLNESS: TWO OTHER RELIGIOUS-CULTURAL VIEWS

Many cultures have developed at least an oral tradition that predates American culture. The values of these cultures share the same basic concern for the health and medical welfare of the patient and society as Americans do; however, the sources from which their values have evolved present a contrast to those found in this country. Two of these, Judaism and Islam, are religious-based cultures that provide an interesting contrast to American views of health and illness, and inform their medical ethics.

### Judaism

For the purposes of the discussion in this chapter, two aspects of Judaism will be presented: (1) the view of life and illness, and (2) the principles of Jewish medical ethics.

#### *Judaism's View of Life and Illness*

Basic beliefs that form the basis of Jewish thinking concern life and the body, illness and healing. As with all religions, these beliefs are handed down from one generation to the next (Figure 21-8). "In the struggle for survival and the fight for life itself, Judaism assigns to individual human life an intrinsic value, probably higher than any of its cognate faiths."<sup>62(p75)</sup> This belief is based on the passage in the Talmud (one of the primary sources of rabbinic discussions and decisions on medical matters in the ancient world) that describes the creation of Adam by God, in that "if any person causes a single life to perish, Scripture regards him as if he had caused an entire world to perish" (Sanhedrin 37a). Believing God created bodies as well as minds, emotions, and wills, the rabbis assumed that human bodies were God's property, which he leased for the duration of one's life. Thus, one does not have the right to destroy the body by suicide, but rather has the responsibility to take care of it.<sup>63(p45),64(p8)</sup> In Jewish *halakah* (the Judaic legal system), virtually every religious precept, with the exception of murder, idolatry, and forbidden sexual relationships, is suspended in order to enhance even the remote possibility of saving a human life. Moreover, matters of

hygiene, diet, exercise, and sleep were subjects for legal obligations under Judaism.<sup>64(p10),65(pp17-19),66(p8)</sup>

As the creator of everything, according to the Bible, God is ultimately the author of health and disease (Deut. 32:39). God is depicted in biblical accounts as visiting illness on people as a punishment for their sins and as a means of expiation (Deut. 28). This linkage between sickness and sin has been challenged even though it has been sustained in Jewish sources. The Book of Job (Figure 21-9) addresses this issue as does a popular book, *When Bad Things Happen to Good People*, by Rabbi Harold Kushner. Because it was difficult to explain the suffering of the Jews according to this view of sin and sickness, Judaism instead generally addressed the degradation, death, destruction, and exile that Jews suffered rather than physical illness. "Wounds and dismemberment suffered in the course of persecutions were all seen as a part of the broader question of how God would allow human beings to inflict suffering of all sorts on his covenanted people in the apparent absence of sin."<sup>64(p13)</sup>



**Fig. 21-8.** "My students know nothing about being Jews," says Vladimir Zeiv, a teacher of Hebrew at the Moscow Synagogue. Judaism as a culture encompasses not only the religious aspects of life, but also every aspect of living. This rich tradition is passed down from generation to generation. Reproduced with permission from *National Geographic*. Feb 1991; 23.



The causative properties of sin did not prevent the rabbis of the Talmud from identifying the physical causes of illness or from seeking to cure them. The most widely held view was that blood was the chief cause of disease. Therefore, bloodletting was prescribed for various illnesses. Other carriers of disease mentioned in the Talmud include bile, the air, contaminated food or beverages, bodily discharges, clothing, bath water, animals, and insects. Lack of fluids, injury to the spinal cord, excessive eating, fasting, drinking of liquor, and sexual activity were also thought to cause disease. Psychological causes were also recognized. It is also notable that Jewish sources attributed sickness to the work of demons, although they rarely linked the demons to the previous sins of their victims. “Jews apparently acquiesced to the inconsistency of believing in both an omnipotent God and independent demons.”<sup>64(p14)</sup>

Jewish belief in the obligation to save the life of an endangered person is derived from the Talmudic verse, “Neither shall thou stand idly by the blood

of thy neighbor” (Lev. 19:16). The Talmud and the various codes of Jewish law offer specific examples of situations in which moral obligation exists with regard to rendering aid—rescue of a person drowning in a river, assistance to one being mauled by a beast, and aid to a person being attacked by bandits.<sup>63(p46)</sup> These examples mandated nontherapeutic interventions. What remained controversial in early Judaism was accepting the work of therapeutic practitioners to cure illness.

To counter the point that God is the source of all healing, and not man, the rabbis pointed out that God himself had authorized healing, in fact required it. This authorization and imperative was found in two biblical verses: (1) an assailant must ensure that his victim is thoroughly healed (Exodus 21:19–20), and (2) “you shall restore the lost property to him” (Deut. 22:2). The Talmud understood the Exodus verse as not only giving permission for the physician to cure, but making such treatment mandatory.<sup>63(pp47–48)</sup> “On the basis of the extra letter in the Hebrew text of the Deuteronomy passage, the Talmud declared that the verse included the obligation to restore a fellow man’s body as well as his property; hence there was an obligation to come to the aid of another person in a life threatening situation.”<sup>64(p15),67(p16)</sup>

Other Talmudic instructions include the obligation of providing medical aid to encompass expenditure of financial resources (Lev. 19:16, previously mentioned), and the exemption of physicians from any liability for injuries they caused in the process of healing (“And you shall love your neighbor as yourself,” Lev. 19:18). It is assumed by the rabbis that this last reference infers that the patient, like the physician himself, would be willing to take some risk to be healed (Sanhedrin 48b). One other Jewish law forbade any person to live in a town in which there was no physician, for doing so would expose a person to an unacceptable degree of risk and would prevent them from fulfilling his or her obligation to receive medical care (Yoma 83-84, Sanhedrin 17b).<sup>67(pp37–38)</sup>

### *Principles of Jewish Medical Ethics*

Many of the aforementioned Jewish moral and halakic principles and rules have significant bearing upon the Jewish practice of medicine. These comprise what could be considered fundamental principles of Jewish medical ethics:<sup>68(p406),69(p66)</sup>

- *Judaism subscribes to commitments, obligations, duties, and commandments commonly*



**Fig. 21-9.** The Purpose of Man’s Being. “Job,” by Dutch painter Jan Lievens (1607–1674). The sufferings of Job, a man blameless before God, challenge the linkage between sickness and sin. Reproduced with permission from the National Gallery of Canada.

shared by all observant Jews. Jewish ethics subscribes to moral self-fulfillment through the obedience to moral-religious norms and requirements.

- *Judaism, in general, favors a casuistry approach, rather than a zealous adherence to general principles.* Each case is dealt with on its own merits, depending heavily on the specific and individual circumstances.
- *Judaism is against absolutizing any single precept, rather, a middle way is always advocated.* When conflicting values in medicine are encountered, each patient must be considered individually, and a solution is reached depending on the specific clinical and ethical circumstances.
- *The principal aim of studying ethics and Jewish law is to act accordingly.* The dictum is “to learn in order to perform,” and not to merely engage in intellectual exercise or academic analysis.
- *The physician–patient relationship is viewed as a covenant.* This relationship is not viewed as a negotiable contract in which the parties agree to the relationship beforehand and which either party can terminate without consequences. There is an obligation upon a physician to always extend help to those who are in need of his or her services.
- *Judaism views the seeking of medical attention by the patient as a moral imperative.* No one has the right to refuse medical treatment deemed necessary and effective by competent opinion.
- *Human life is sacrosanct and of supreme worth.* Any precept, whether religious or ethical (except idolatry, murder, and adultery), is automatically suspended if it conflicts with the interests of human life. Every human life is equally valuable and inviolable.

Thus, the Jewish view of life, illness, health, healing, and medical ethics is primarily based on *halakah*, and embraces Jewish laws, practices, and observances since the time of Abraham. Jews speak from within their own religious tradition that recognizes the sanctity and worth of human life, and the imperatives for the patient and the healthcare professional to seek and provide needed medical care. Yet, Judaism recognizes the limitations of medical science to heal or cure in every instance. Accordingly, one is neither to prolong the moment of death, nor hasten its arrival. Jews are keenly aware that the body, as the creation and property of God, is on loan for the duration of life.

## Islam

Islam is the third of the monotheistic religions, commonly referred to as the Abrahamic religions, the other two being Judaism and Christianity. The three principal figures in these religions share the ancestry of Abraham: Moses and Jesus through his son Isaac, and Mohammed through his son Ismail. They all embrace the Abrahamic belief in God and His oneness. Uniquely, Islam recognizes the other two religions and proclaims itself as the last link of the long chain of God-sent messages.<sup>70(p57)</sup>

Muslim writers emphasize the uniqueness of God’s revelation to Mohammed, in which religion and morality are seen as inextricably linked. Thus, Islam is not only a religion of dogma and theological statements, but it also influences deeply the behavior of every believer in all areas of his or her life.<sup>71(p174)</sup> Islam has a framework of a total legal system to regulate and organize various aspects of human activities. “Law is a human necessity, and morals alone are not enough for actual government of society nor can they abound in a legal vacuum.” This total system of Islam is called the *Shari’a*, and although comprehensive, only a few rulings in it are fixed. It represents outlines that allow for flexibility and for new rulings to be evolved to suit new circumstances in changing times and places, but always within the general framework established by the *Shari’a*.<sup>70(p59)</sup>

### Islamic View of Wellness and Illness

The *Shari’a* is filled with rulings that reflect Islamic concepts of wellness and illness. Health and wellness are described not simply as the absence of disturbing factors such as illness, but as embracing the wholeness of human well-being. Wholeness, according to Islam, is granted by God, who is the cause of all wholeness, for “God gives food and drink, heals the sick, and makes persons die and live again” (26:79–81 [references in the *Quran* are noted in parentheses and follow this format]). Because God is the creator of everything, all evil is related to him insofar as it is caused to remind humans of misdoings in order to better the wrongdoer’s attitude. The Muslim knows that God’s will is somehow involved, either by directly causing suffering or allowing it to happen. “Suffering and illness clearly show that the originally intended wholeness has been disturbed either because God is punishing the wrongdoer or because humans must directly suffer the consequences of human sins.”<sup>71(p177)</sup>

Moral education is seen as an important preventative measure to preserve a sane community and

to guarantee the individual's happiness within that community. "Medicine, hygiene, and regulations for healthy living together form the guidelines for good living according to God's will."<sup>71(p178)</sup> To underscore this widely held Islamic belief, a book was written under the general theme of "medicine in the Koran."<sup>72</sup> In it, the author clearly shows that medicine and health, in Islam, must be seen as integral parts of wellness in general.

In doing God's will and putting the divine principles into practice, historically, Muslims did not merely wait for God to act but encouraged their scholars to accumulate as much knowledge as possible. With regard to medicine, they integrated Greek and other foreign medical techniques in order to cure the sick, at least as far as God allows for success in curing, as no one dies unless it is God's decision (3:45). According to the *Quran* (5:32), saving and preserving life are among the highly regarded tasks. In practice, Muslims were among the first to build hospitals, engage in surgery, and use herbal and medicinal therapies for both corporal (Figure 21-10) and mental illnesses.<sup>71(p179),73(p158)</sup>

### Principles of Islamic Medical Ethics

As a means of incorporating Muslim beliefs and concepts in illness, healing, and specific religious obligations toward caring for the sick, the International Conference on Islamic Medicine, held in Kuwait in 1981, formulated a code of professional medical ethics. The code includes guidelines for the



**Fig. 21-10.** A pregnant woman, in the traditional Islamic clothing, receives a prenatal check-up. Islamic medicine has a rich and ancient heritage. It developed many innovative treatments while maintaining traditional modesty and values. Reproduced with permission from Martha Tabor.

Islamic physician's behavior and attitude, both at the personal and professional levels<sup>71,74,75</sup>:

- *The Muslim physician must believe in God and in the Islamic teachings and practice, both in private and public life. He must follow the path of righteousness and always seek God's support.*
- *The physician has a professional requirement to acquire and maintain proper medical knowledge. Scientific or academic research is encouraged so long as it aims to solve a particular problem or to "reveal the signs of God in His creation" (20:114; 35:28; 39:9).*
- *The physician must abide by the legal rules regulating the profession, provided they do not violate Islamic teachings. Obedience to the law, both temporal and spiritual, is proper and expected (4:59).*
- *The care the physician provides to his patient must be in accordance with God's guidelines. Life is given by God, and cannot be taken away except by Him or with His permission (5:32; 25:3; 67:2).*
- *The physician has no right to terminate any human life under his care. Abortion is restricted unless the life of the mother is at risk. For all patients, when treatment carries no prospect of cure, it ceases to be mandatory, but no action should be taken to actively bring about a patient's death.*
- *The physician has no right to recommend or administer any harmful material to his patients. God makes good things lawful and bad things forbidden (7:157). Pain and suffering must be alleviated physically (by medication), as well as psychologically. Active euthanasia is forbidden.*
- *The physician must render the needed help regardless of the financial ability or ethnic origin of the patient. The advice given and the treatment rendered must consider both the patient's body and mind, always remembering to enjoin what is just and forbid what is wrong (76:8–9).*
- *The physician must protect patient confidentiality (23:8).*
- *The physician must adopt an appropriate manner of speech. It must be pure and uplifting (22:24).*
- *It is advisable that the physician examine patients of the opposite sex in the presence of a third person whenever feasible. This serves to protect both the patient and the physician (4:28; 24:30–31). Situations of this sort are*



always a test of the physician's moral character and his strength.

- *The physician must not criticize another physician in the presence of patients or health personnel* (4:148; 49:11).
- *The physician must refuse payment for the treatment of another physician or his immediate family.* There is no specific instruction for this in the *Quran* or in Islamic tradition. However, an analogy is drawn when God says: "Alms are for the poor, the needy and those employed to administer the funds..." (9:60). This is a situation where the persons providing a certain service are entitled to use the same service at the time of need. This also applies to physicians.
- *The physician must always strive to use wisdom in all his decisions and the reward will be great.* "To whom wisdom is granted, is granted a great deal of good" (2:269).

Islam, as a religion, has played a fundamental role in the creation of a culture that has nurtured the cultivation and development of medicine. Medical issues in Islam are not discussed in isolation apart from theology and religious law. Even though Islamic tradition held a high standard of ethical

conduct in medicine, it was not until 1981 that any real attempt was made to codify the teachings of the *Quran* into a code of ethics. Although this code is not endorsed by all Muslim physicians, it does clarify how different the moral reasoning is of one in the Muslim tradition from secular and Judeo-Christian medical ethical discussions.

American medicine and its ethics reflect the empirical science it guides: it values the pursuit of objectivity and quantification of experience, and is analytical, rationalistic, dialectical, and often secular in spirit.<sup>18(p191)</sup> Though its roots run deep in the Calvinistic tradition, American medical ethics has evolved into a rights-based discipline that seemingly accords an inordinate amount of autonomy to the individual without regard to the consequences of that autonomy to the good of the community or society.

Within the Jewish and Islamic traditions, a person is seen as the creation and handiwork of God, as a member of the larger community of faith. What one does, as an individual, cannot be easily separated from the religious and social milieu in which one lives. One is less prone, as a Jew or Muslim, to make decisions without considering their impact on his or her standing in the church, the family, and the community.

## ADDRESSING CONFLICTS ARISING FROM RELIGIOUS AND CULTURAL CONSIDERATIONS

As noted in the opening pages of this chapter, the American military is increasingly multicultural and multiethnic, just as is American society. Considering the various deployments of American military resources, it is only natural that American healthcare professionals will encounter individuals and cultures that can be considerably different from those in which they grew up. From the perspective of military mission, it is essential that religious and cultural consideration be given to each patient, in each circumstance, to maximize the medical benefits of an intervention. The first step is to understand the potential for conflict.

### The Potential for Conflict

The greater the diversity of ideas and cultures, the greater the potential for conflict when people interact, especially at times of increased stress. The following examples reveal conflicts between healthcare professionals and patients and family members' religious or cultural values.

A Jehovah's Witness father states his religiously based demand: "No blood transfusions!" Engaged

in a desperate attempt to save the father's young son's life, the physician responds, "I may be sued, but I'll not be responsible for murdering this boy because of your beliefs!" Asked the number of pregnancies she has had, a Hispanic woman answers, "two." Later she mentions a third pregnancy—a miscarriage. In her Central American cultural background, miscarriages don't equate with pregnancies; only the successful pregnancies count.<sup>76(p256)</sup>

The first example of religious value that creates a potentially high-drama conflict in patient care is easily identifiable. The second example involves a much more subtle conflict between different cultures' languages, and highlights the fact that "language differences between physicians and patients are indicative of cultural differences that significantly affect care."<sup>77(p727)</sup> Likely, many American healthcare professionals routinely and incorrectly label such conflicts as resulting wholly from the patient's or family members' odd or aberrant religious or cultural values, with little or no recognition of the role of the healthcare professionals' corporate (let alone personal, religious, or cultural) values in the conflict. Viewing the conflict as health-



care versus the patient's (or loved ones') religious and cultural values is overly simplistic. It fails to acknowledge that the patient's religious and cultural values may indeed be another concept of healthcare. It also fails to understand that American healthcare is permeated with its own cultural values.

### Some Caregiver Guidelines

The following discussion highlights five guidelines that healthcare professionals should employ in addressing conflicts in patient healthcare decision making that result from religious or cultural considerations or both.

#### *Develop an Awareness of the Potential for Conflict*

Leininger describes her observations of an American nurse with a Philippine female patient in her first stay in an American hospital. Having placed a small towel over the patient's breasts, the nurse attempted to wash the rest of the patient's almost naked body. During the washing, the patient was tense and struggled to cover her nakedness with blankets. She told the nurse, "I am clean and do not need this bath. Please leave me alone." The annoyed nurse stopped the bath and left the room. Later, family members helped the patient to wash herself.<sup>78</sup> Privacy and modesty are very important to Philippine female patients. In the preceding example, the patient communicates these values to the nurse as best she can. Clearly, the nurse's lack of awareness about this cultural factor contributes directly to the conflict over the care being provided.

Approaches to developing an awareness of the potential for religious- or culture-based conflict in individual patient care decisions may differ. A minimalist approach is that until the patient communicates the potential for a problem, the caregiver need have little concern for potential conflict. This approach would likely have strong support in the cost-conscious, time-constrained managed care setting, where cost-cutting efficiencies compete with patient autonomy for highest priority. An advocate for honest and complete informed consent communication between doctors and their patients,<sup>79</sup> however, would likely say that caregivers have an ethical duty to actively pursue and develop an awareness of the potential for conflict.

The practical and/or ethical duty owed the patient may lie somewhere between the two positions. Given a general awareness of the potential for such

conflicts, the caregiver should "screen" (triage) patients: (a) seeking to understand the patient in the larger context of his or her religion or culture and (b) sorting out for additional inquiry those patients with higher risks of care decision conflict grounded in religious or cultural values.

More than listening to patients' or family members' words is involved. Patients and their families express their religious and cultural beliefs in a variety of behaviors and actions. Helpful clues about their religious or cultural values may be found in areas such as: (a) communication (eg, eye contact, idioms, first names, demeanor, expressions of pain); (b) social custom (eg, clothing, symbols, dietary practices, colors, ways of expressing grief); (c) family relationship (eg, visiting patterns, self-care issues, gifts, kinship); (d) gender issues (eg, women and authority, male dominance, female circumcision, virginity, female purity and modesty); and (e) folk medicine (eg, coin rubbing, cupping, folk healers, scars, fat).

In developing the awareness under discussion, the caregiver must actively listen to the patient, approaching him with a "help me understand why" mind-set. Where a conflict involves language differences, improved translation alone may be inadequate to resolve the conflict. Any interpretation of the translation needs to be understood in the context of the patient's religious or cultural value system.

#### *See Patients as Individuals Rather Than Stereotypes*

Providing healthcare to an individual patient within the framework of a religious or cultural stereotype suggests potential infringements upon the patient's religious or cultural autonomy. For example, although Jehovah's Witness patients generally refuse blood transfusions, stereotyping all Jehovah's Witness patients as individuals who will refuse blood products without asking how the broad prohibition applies to an individual Jehovah's Witness patient could violate the patient's autonomy. People accept or comply with "official" religious or cultural beliefs or practices in varying degrees. Thus, for example, some Jehovah's Witness patients while refusing whole blood will accept products made from blood fractions.

A fine line exists, however, between framing one's understanding of the patient by using stereotypes as compared to appropriately using generalizations. For example, a stereotype such as, "Mrs. Gonzalez is a Mexican; she must be Catholic; she must have a large family," may well preclude further and open discussion. It fails to focus on Mrs.

Gonzalez specifically. Using a generalization like, "I think many Mexican Catholics have large families; I wonder if Mrs. Gonzalez has a large family," opens the discussion to an appropriate, personalized focus on Mrs. Gonzalez's cultural situation.

### ***Understand the Impact of Religion and Culture on Patient Autonomy***

Religious and cultural considerations can actually change the concept of "patient autonomy" that is so important in modern American healthcare practice and ethics. American healthcare deems the competent, informed adult patient "autonomous." Generally speaking, any patient can choose or reject medically indicated treatment or therapy even when it involves serious health risks, except where there is appreciable risk of serious harm to a third party. Consequently, obtaining the patient's informed consent is essential in American healthcare jurisprudence and ethics. However, as in the case of Leah, sometimes autonomy or its derivative—*informed consent*—runs afoul of the patient's religious or cultural values. A patient's cultural or religiously grounded view of "authority" may have serious implications for the patient's understanding of his autonomy, determining whether the patient views his role in the healthcare setting as either an active or a passive participant in treatment decisions.

### ***Develop an Awareness of One's Own Religious or Cultural Values***

The healthcare professional must be aware of his or her personal or professional religious or cultural values as they relate to the patient and the patient's autonomy. Cultivating this awareness is very important. Where those values differ significantly from the patient's, the caregiver may have an ethical duty, and possibly a legal duty, to disclose his beliefs to the patient. In some cases, the caregiver's appropriate action may be to transfer the case to another caregiver and to withdraw from the case.

A classic conflict situation involves the physician who, because of religious beliefs, refuses to grant a terminal patient's request to withdraw life support. A recent survey of 301 Texas physicians suggests that doctors' religious beliefs can ultimately influence their clinical decisions. The survey produced a profile of the physician who is likely to deny medical futility while treating patients who are clearly dying or persistently unconscious. The profile details the following characteristics: male, attends religious services,

defines failure as "not doing all you can do," low fear of legal consequences, uncertain about efficacy and benefit of treatment for terminally ill patients, and emotional detachment from patients.<sup>80</sup>

It seems obvious that a doctor should not force his patients to accept his (the doctor's) personal religious views. In December 1989, the American Psychiatric Association approved the following guideline to that effect for its member psychiatrists:

Psychiatrists should not impose their own religious, antireligious, or ideologic systems of beliefs on their patients, nor should they substitute such beliefs or ritual for accepted diagnostic concepts or therapeutic practice.<sup>81(p543)</sup>

However, simply adopting rules like the above may insufficiently protect patients from their psychiatrists' religious or cultural values. This is because Western psychotherapy, according to Torrey, is steeped in Western values. "[It] ... is culture bound."<sup>82(p219)</sup> Post, in his review of Torrey's position, goes on to note that psychotherapy has "middle class values such as self-reliance, individualism, enhancement of wealth and social status, and rationalism."<sup>83(p219)</sup> He acknowledges the significant conflict these values have with "the many forms of religious devotion, self-denial, and spiritual discipline that reject these values."<sup>83(p219)</sup> (Post,<sup>83</sup> for instance, discusses the problem of psychiatric involvement in faith breaking ["deprogramming"] and notes that some psychiatrists view religious conversion as pathological. This is a clear example of how Western psychotherapy's culture rejects religious fundamentalism.) Consequently, regardless of the individual caregiver's personal religious or cultural values, the professional cultural (and arguably religious) values he embodies may conflict with the patient's religious or cultural values.

What about the a-religious caregiver? One can envision the physician who wholly embraces the philosophy of science and/or secular humanism as his value system. Such a caregiver might project hopelessness, fatalistic surrender, or faith in nothing beyond medical science upon the patient. Considering the general rule in medicine that a physician should not abandon the patient, such behavior might inflict serious pain and psychological harm on the patient, resulting in emotional and psychological abandonment of the patient.

To illustrate the point further, evidence exists that more African-Americans and Hispanics, as compared to non-Hispanic whites, want their doctors to keep them alive regardless of how ill they are, while more

non-Hispanic whites agree to stop life-prolonging treatment under some circumstances compared to African-Americans and Hispanics.<sup>84(pp157-158)</sup> Whether or not these differences are due to cultural dynamics alone or to both cultural and religious considerations, one can envision possible conflicts when a physician who zealously pursues science's ends aggressively seeks to persuade an African-American or Hispanic patient or family to acknowledge medical futility and stop life-prolonging treatment.

### *Be an "Honest Broker" of Others' Values*

When a patient's or others' religious or cultural values conflict with a caregiver's personal or professional values, the caregiver must appropriately "broker" the patient's values, using honesty and

integrity in addressing the conflict. The "honest broker" caregiver consciously seeks to avoid using religious or cultural stereotypes that preclude additional and open discussion about the patient's specific beliefs and values (Figure 21-11). He encourages healthy, positive dialogue with patients and others designed to clarify and understand their views. He facilitates rational discussion of all relevant values that allows for even-handed persuasion and precludes manipulative or coercive dialogue or behavior. He encourages focusing the discussion on how patients' decision-making processes are influenced by their culture and faith traditions (Figure 21-12) and away from a singular focus on clinical "certainties."

Caregivers, patients, families, and others (eg, hospitals, other patients) have vested interests in the



**Fig. 21-11.** Wedding belle Hayat Tawil was born and raised in the United States but met and married her husband, Eyad, during a visit to the West Bank. Photograph courtesy of JoAnna Pinneo; reproduced with permission. Photograph originally appeared in *National Geographic*. June 1992; 110.



**Fig. 21-12.** Blinking back tears, Elga Pahkel listens to the Estonian National Anthem. Photograph courtesy of Larry Davis, reproduced with permission. Photograph originally appeared in *National Geographic*. November 1990; 3.



outcomes of the conflicts. At times it may be very difficult or impossible for the healthcare professional with a stake in the outcome to address the patient's or other parties' values with honesty and integrity. Caregivers who become entrenched or take sides in the dispute, who "demonize" the patient and the patient's values as "extreme" or "irrational," or who are unwilling or unable to remain open to the patient and his values, cannot serve as honest brokers. They need help to accomplish this guideline. In addition, some value conflicts are so serious that even if the caregiver is fully aware of all parties'

values and is truly seeking to function as an honest broker of those values, additional help is needed.

Some of the sources available to help the caregiver address the conflict include: (a) other healthcare professionals, (b) institutional ethics committees, (c) trained healthcare ethics consultants, (d) ethical decision-making models, (e) consultation with religious or cultural authorities, (f) conflict resolution strategies, training, and expertise, (g) participation in healthcare ethics or religious/cultural awareness programs, and (h) caregiver self-education.

## CONCLUSION

Healthcare and its ethics have a long tradition that has largely taken on the values, beliefs, and practices of Western religious and cultural heritage found in America. Yet, Americans are increasingly interacting with persons—both patients and healthcare professionals, in this country and abroad—who are from different cultural backgrounds and who profess different religious beliefs. As the proliferation of medical science and technology increases, and as more patients from different backgrounds come to the United States for help, healthcare professionals must avoid an ethnocentric view of what is best for their patients. They should instead make a good faith effort to identify, understand, and be sensitive to all patients' religious and cultural needs as it affects their healthcare

decisions. In addition, healthcare professionals should be aware of their own religious, cultural, and professional heritage and how they influence personal and professional perceptions, beliefs, and actions in their relationships with others.

As the world grows smaller and Americans become more aware of the differences that exist among various groups of people, including the multiplicity of subcultures within the United States, it is important for all people to understand and appreciate that wanting to have health, to be free from pain and suffering, and to live and die with dignity are universal wants that transcend religious, cultural, and national boundaries. As military healthcare professionals provide the means to help each other meet these goals, the diversity and richness of each other's personhood and heritage should be

celebrated.

## REFERENCES

1. Lantos JD, Offner SK, Chambers TS. What should Leah be told? [Case study and commentaries]. *Second Opin.* 1993;18:81–97.
2. Kluckhohn F. Dominant and variant value orientations. In: Brink P, ed. *Transcultural Nursing: A Book of Readings*. Englewood Cliffs, NJ: Prentice-Hall; 1979: 63–81.
3. Jonsen AR. American moralism and the origin of bioethics in the United States. *J Med Philos.* 1991;16:113–130.
4. Jonsen AR. American moralism and the origin of bioethics in the United States. In: Pellegrino E, Mazzarella P, Corsi P, eds. *Transcultural Dimensions in Medical Ethics*. Frederick, Md: University Publishing Group; 1992: 21–33.
5. Miller P. *The Life of the Mind in America*. New York: Harcourt, Brace; 1980.
6. Marsden GM. *Fundamentalism in American Culture*. New York: Oxford University Press; 1980.
7. Ramsey P. *The Patient As Person*. New Haven, Conn: Yale University Press; 1970.
8. National Heart and Lung Institute. *Report of the Totally Artificial Heart Assessment Panel*. Washington, DC: De-



partment of Health, Education and Welfare; 1973.

9. National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. *The Belmont Report*. Washington, DC: Government Printing Office; 1978.
10. *President's Commission for the Study of Ethical Problems in Medicine*. Washington, DC: Government Printing Office; 1983.
11. Beauchamp TL, Childress JF. *Principles of Biomedical Ethics*. 4th ed. New York: Oxford University Press; 1994.
12. Jonsen AR, Siegler M, Winslade WJ, eds. *Clinical Ethics*. 3rd ed. New York: McGraw-Hill; 1992.
13. Fletcher JC, Hite CB, Lombardo PA, Marshall MF, eds. *Introduction to Clinical Ethics*. Charlottesville: University of Virginia Center for Biomedical Ethics; 1994.
14. Jonsen A, Toulmin S. *The Abuse of Casuistry*. Los Angeles: University of California Press; 1988.
15. Pellegrino ED, Thomasma DC. *The Virtues in Medical Practice*. New York: Oxford University Press; 1993.
16. Fry ST. Toward a theory of nursing ethics. *Adv Nurs Sci*. 1989;11(4):8–20.
17. Jonsen AR. American moralism and the origin of bioethics in the United States. In: Pellegrino E, Mazzarella P, Corsi P. *Transcultural Dimensions in Medical Ethics*. Frederick, Md: University Publishing Group; 1992.
18. Pellegrino ED. Intersections of Western biomedical ethics and world culture: Problematic and possibility. *Camb Q Healthc Ethics*. 1992;1(3):191–196.
19. Wreen M. Autonomy, religious values, and refusal of lifesaving medical treatment. *J Med Ethics*. 1991;17:124–130.
20. Princeton Religious Research Center. Religion in America 1992–1993. In: Larson D, Larson S. *The Forgotten Factor in the Physical and Mental Health: What Does the Research Show—An Independent Study Seminar*. Rockville, Md: National Institute for Healthcare Research; 1994: 6–7.
21. Johnson D, Williams J, Bromley D. Religion, health, and healing: Findings from a southern city. *Sociol Analysis*. 1986;46(1):66–73.
22. Trier K, Shupe A. Prayer, religiosity, and healing in the heartland, USA: A research note. *Rev Religious Res*. 1991;32(4):351–358.
23. King D, Sobal J, DeForge B. Family practice patients' experience and beliefs in faith healing. *J Fam Pract*. 1988;27(5):505–508.
24. King D, Bushwick B. Beliefs and attitudes of hospital inpatients about faith healing and prayer. *J Fam Pract*. 1994;39(4):349–352.
25. Suchman A, Matthews D. What makes the doctor–patient relationship therapeutic: Exploring the connexional dimensional of patient care. *Ann Intern Med*. 1988;108:125–130.
26. Marx K. *Contribution to the Critique of Hegel's Philosophy of Law: Introduction*. Published in the *Deutsch Französische Jahrbücher*; 1944.
27. Freud S. *The Future of an Illusion*. Garden City, NY: Doubleday; 1927.
28. Ellis A. Psychotherapy and atheistic values. *J Consult Clin Psychology*. 1980;48:635–639.
29. Moore R, Mead L, Pearson T. Youthful precursors of alcohol abuse in physicians. *Am J Med*. 1990;88:332–336.

30. Desmond D, Maddux J. Religious programs and careers of chronic heroin users. *Am J Drug Alcohol Abuse*. 1981;8(1):71–83.
31. Koenig H, George L, Meador K, Blazer D, Ford S. Religious practices and alcoholism in a southern adult population. *Hosp Community Psychiatry*. 1994;45(3):225–231.
32. Cook J, Wimberly D. If I should die before I wake: Religious commitment and adjustment to the death of a child. *J Sci Stud Religion*. 1983;22(3):222–238.
33. Conway K. Coping with the stress of medical problems among black and white elderly. *Int J Aging Hum Dev*. 1985–1986;21:39–48.
34. Rabins P, Fitting M, Eastham J, Fetting J. The emotional impact of caring for the chronically ill. *Psychosom*. 1990;31(3):331–336.
35. Frankel B, Hewitt W. Religion and well-being among Canadian university students: The role of faith groups on campus. *J Sci Stud Religion*. 1994;33(1):62–73.
36. Hannay D. Religion and health. *Soc Sci Med*. 1980;14A:683–685.
37. Idler E, Kasl S. Religion, disability, depression, and the timing of death. *Am J Sociol*. 1992;97(4):1052–1079.
38. Poloma M, Pendleton B. Religious domains and general well-being. *Soc Indicators Res*. 1990;22:255–276.
39. Hadaway CK, Roof WC. Religious commitment and the quality of life in American society. *Rev Religious Res*. 1978;19:295–307.
40. McNamara P, St. George A. Measures of religiosity and the quality of life. In: Moberg D, ed. *Spiritual Well-Being: Sociological Perspectives*. Washington, DC: University Press of America; 1979.
41. Ellison C. Religious involvement and subjective well-being. *J Health Soc Behav*. 1991;32:80–99.
42. Comstock G, Partridge K. Church attendance and health. *J Chronic Dis*. 1972;25:665–672.
43. Berkman L, Syme S. Social networks, host resistance, and mortality: A nine-year follow-up study of Alameda County residents. *Am J Epidemiol*. 1979;109:186–204.
44. Berkel J, de Waard F. Mortality pattern and life expectancy of Seventh Day Adventists in the Netherlands. *Int J Epidemiol*. 1983;12(4):455–459.
45. Gardner J, Lyon J. Cancer in Utah Mormon men by church activity level. *Am J Epidemiol*. 1982;116:243–257.
46. Faulkner J, DeJong C. Religiosity in 5D: An empirical analysis. In: Andrews M, Boyle J, eds. *Transcultural Concepts in Nursing Care*. 2nd ed. Philadelphia: JB Lippincott Company; 1995: 354.
47. Galanti G. *Caring for Patients From Different Cultures*. Philadelphia: University of Pennsylvania Press; 1991: 35–44.
48. Herberg P. Theoretical foundations of transcultural nursing. In: Andrews M, Boyle J, eds. *Transcultural Concepts in Nursing Care*. 2nd ed. Philadelphia: JB Lippincott Company; 1995: 3–47.
49. Brown K. Afro-Caribbean spirituality: A Haitian case study. *Second Opin*. 1989;11:36–57.
50. Capra F. *The Turning Point*. New York: Bantam Books; 1982: 109–110.
51. Ludman E, Newman J. Yin and yang in the health-related food practices of three Chinese groups. *J Nutr Educ*. 1984;16:4.

52. Kleinman A. *Patients and Healers in the Context of Culture*. Berkeley: University of California Press; 1980.
53. Dubos R. Medicine evolving. In: Sobel D, ed. *Ways of Health*. New York: Harcourt Brace Jovanovich; 1979: 21–44.
54. Uden G, Norberg A, Lindseth A, Marhaug V. Ethical reasoning in nurses' and physicians' stories about care episodes. *J Adv Nurs*. 1992;17(9):1028–1034.
55. Stein LI. The doctor–nurse game. *NLN Publ*. 1990;20:159–164.
56. Stein LI, Watts DT, Howell T. The doctor–nurse game revisited. *N Engl J Med*. 1990;322(8):546–549.
57. Cali D. Cultural influences on physician communication in health care teams. *JBC*. 1991;18(1):22–27.
58. Coombs RH, May DS, Small GW, eds. *Inside Doctoring*. New York: Praeger; 1986.
59. Bosk CL. *Forgive and Remember: Managing Medical Failure*. Chicago: The University of Chicago Press; 1979.
60. Winslow G. Minding our language: Metaphors and biomedical ethics. *Update*. 1994;10:1–6.
61. Council of Ethical and Judicial Affairs AMA. Ethical issues in managed care. *JAMA*. 1995;273:330–335.
62. Glick S. A view from Sinai: A Jewish perspective on biomedical ethics. In: Pellegrino E, Mazzaella P, Corsi P, eds. *Transcultural Dimensions in Medical Ethics*. Frederick, Md: University Publishing Group; 1992: 73–82.
63. Bleich J. The obligation to heal in the Judaic tradition. In: Veatch R, ed. *Cross Cultural Perspectives in Medical Ethics: Readings*. Boston: Jones & Bartlett Publishers; 1989: 44–58.
64. Dorff E. The Jewish tradition. In: Numbers R, Amundsen D, eds. *Caring and Curing: Health and Medicine in the Western Religious Traditions*. New York: Macmillan Publishing Company; 1986: 539.
65. Rosner F, Bleich J. *Jewish Bioethics*. New York: Sanhedrin Press; 1979.
66. Rosner F. *Modern Medicine and Jewish Ethics*. New York: Yeshiva University Press; 1986.
67. Feldman D. *Health and Medicine in the Jewish Tradition: L'Hayyim—To Life*. New York: Crossroad Publishing Company; 1986.
68. Steinberg A. Bioethics: Secular philosophy, Jewish law and modern medicine. *Isr J Med Sci*. 1989;25(7):404–409.
69. Steinberg A. A Jewish perspective on the four principles. In: Gillon R, ed. *Principles of Health Care Ethics*. New York: Wiley; 1994: 65–73.
70. Hathout H. Islamic basis for biomedical ethics. In: Pellegrino E, Mazzaella P, Corsi P, eds. *Transcultural Dimensions in Medical Ethics*. Frederick, Md: University Publishing Group; 1992: 57–72.
71. Antes P. Medicine and the living tradition of Islam. In: Sullivan L, ed. *Healing and Restoring: Health and Medicine in the World's Religious Traditions*. New York: Macmillan Publishing Company; 1989:173–202.
72. Optiz K. *Die Medizin im Koran*. Stuttgart, Germany; 1906.
73. Rahman F. Islam and health/medicine: A historical perspective. In: Sullivan L, ed. *Healing and Restoring: Health and Medicine in the World's Religious Traditions*. New York: Macmillan Publishing Company; 1989: 149–172.
74. Rahman A, Amine C, Elkadi A. Islamic code of medical professional ethics. In: Veatch R, ed. *Cross Cultural Perspectives in Medical Ethics: Readings*. Boston: Jones & Bartlett Publishers; 1989: 120–126.
75. Serour GI. Islam and the four principles. In: Gillon R, ed. *Principles of Health Care Ethics*. New York: Wiley; 1994:

75–91.

76. Haffner L. Cross cultural medicine a decade later: Translation is not enough. *West J Med.* 1992;157(3):255–259.
77. Woloshin S, Bickell N, Schwartz L, Gany F, Welch G. Language barriers in medicine in the United States. *JAMA.* 1995;273(9):724–728.
78. Leininger M. The need for transcultural nursing. *Second Opin.* 1992;17(4):83–85.
79. Katz J. *The Silent World of Doctor and Patient.* New York: Free Press; 1984.
80. Swanson JW, McCrary SV. Doing all they can: Physicians who deny medical futility. *J Law Med Ethics.* 1994;22(4):318–326.
81. American Psychiatric Association. Guidelines regarding possible conflict between psychiatrists' religious commitments and psychiatric practice. *Am J Psychiatry.* 1989;147(4):543.
82. Torrey E. *Witchdoctors and Psychiatrists: The Common Roots of Psychotherapy and Its Future.* New York: Harper and Row; 1986. Quoted by: Post SG. Psychiatry, religious conversion, and medical ethics. *Kennedy Inst Ethics J.* 1991;1(3):207–223.
83. Post SG. Psychiatry, religious conversion, and medical ethics. *Kennedy Inst Ethics J.* 1991;1(3):207–223.
84. Caralis P, Davis B, Wright K, Marcial E. The influence of ethnicity and race on attitudes toward advance directives, life-prolonging treatments, and euthanasia. *J Clin Ethics.* 1993;4(2):155–165.



# Chapter 22

## SOCIETAL INFLUENCES AND THE ETHICS OF MILITARY HEALTHCARE

JAY STANLEY, PhD\*

---

### INTRODUCTION

#### GENERAL WELL-BEING AND VOLUNTARY RESOCIALIZATION

- Conceptualization of Well-Being
- Perspective on Resocialization
- Resocialization and Military Medicine

#### OVERVIEW OF SOCIETAL INFLUENCES

#### GENDER CONSIDERATIONS

- Women in the Armed Forces
- Military Care Issues Related to Military Spouses and Children

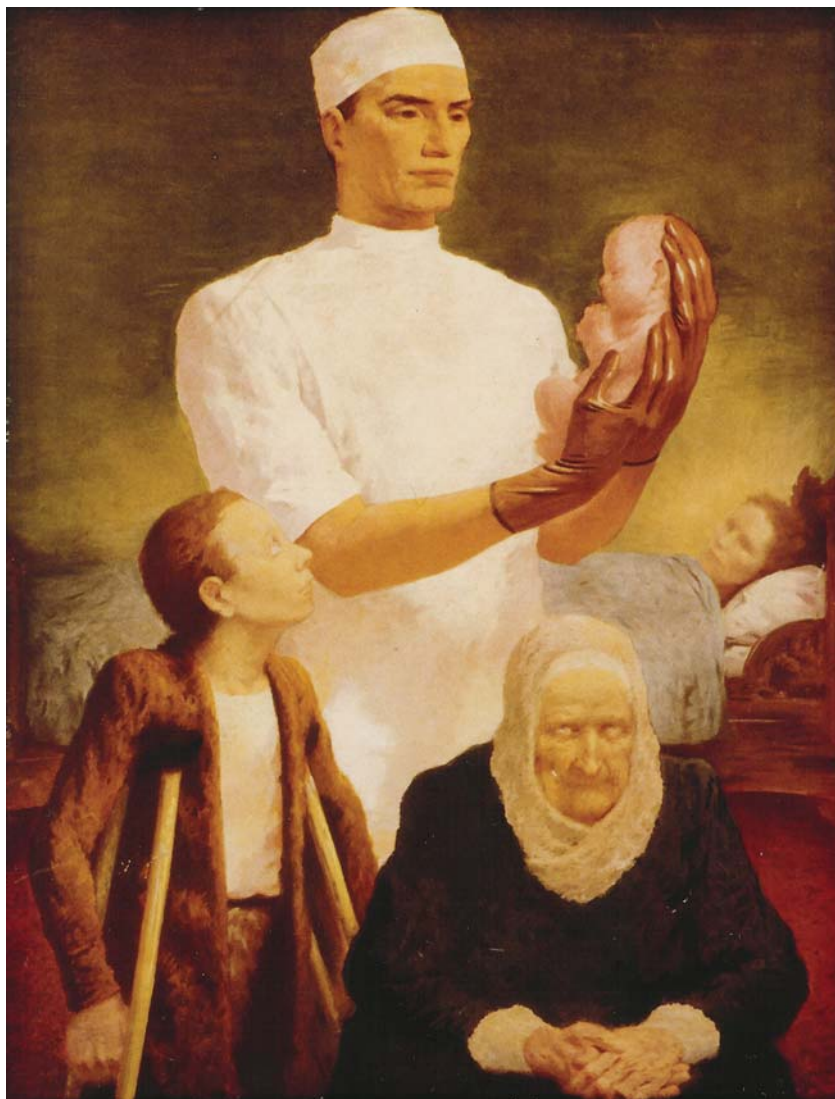
#### SEXUAL PREFERENCE

- The Impact of Acquired Immunodeficiency Syndrome
- Military Policy Regarding Acquired Immunodeficiency Syndrome

#### VETERANS' HEALTHCARE ISSUES AND THE POLITICS OF ELIGIBILITY

### CONCLUSION

*\*Formerly, Consultant to the Presidential Advisory Committee on Gulf War Veterans' Illnesses; Professor Emeritus of Sociology and Director, Symposium for Peace, War and Military Studies, Department of Sociology and Anthropology, Towson University, Towson, Maryland 21204-7097*



J.O. Chapin

*The Doctor*

1944

The fourth of seven images from the series *The Seven Ages of a Physician*. The image portrays people in varying conditions, from the healthy newborn to the elderly woman. Within the military community there is a strong sense that military medicine will care for service members and their families from the cradle to the grave in exchange for the sacrifices that military life entails.

Art: Courtesy of Novartis Pharmaceuticals.

## INTRODUCTION

Military healthcare within the American armed forces is confronted by many challenges as it responds to the changing cultural environment of its host society, and a force that is currently composed of volunteers. As the demographics of the military force have changed in recent decades (more married personnel with families), the practice of military medicine, that is, battle-related care, has moved toward the practice of medicine in the military—care of military personnel and their family members. Further, in the aftermath of the large military mobilizations for World War II, Korea, Vietnam, and the Persian Gulf, veterans have increasingly been a part of the military healthcare system. These are obviously two quite different orientations. A significant component of this changing landscape has been an increasing division of moral-ethical considerations reflected within the larger American society. The questions are twofold: What *ought* or *should* military healthcare be? For whom should it *so be*? The pragmatic question that evolves, then, is for what and for whom is military medicine responsible?

The response of military healthcare to societal influences has been, and will continue to be, shaped

by two additional concerns. First is a growing recognition of the viability of the multidimensional conceptualization (physical, mental, and social) of well-being as argued by the World Health Organization.<sup>1,2</sup> By this is meant all aspects of the patient, not only as these aspects affect the results of the medical care, but, just as important, as the medical care affects the total patient. Second is a recognition of the importance of successful voluntary resocialization of healthcare personnel, as well as the consumers. Resocialization should be understood as a social-psychological process that functions to quickly transform the basic values, beliefs, motivations, and self-image of individuals. Examination of change within military healthcare in light of societal influences such as gender, those related to sexual preference, veterans' issues, and politics, will be under the umbrella of these dual perspectives of general well-being and voluntary resocialization. Thus, it is not enough for the military healthcare system to simply adjust its services to meet the physical needs of this expanding pool of patients. It must also adjust to meet the expanding views of this population of patients as they reflect the overall society from which they come.

## GENERAL WELL-BEING AND VOLUNTARY RESOCIALIZATION

The concept of overall well-being presents a challenge to medicine in general, but especially to military medicine, as the latter is indeed medicine within the context of the military. Voluntary resocialization is, likewise, an influence on the ethics of military healthcare. What, then, is well-being and what is its relationship to voluntary resocialization?

### Conceptualization of Well-Being

An emerging conceptualization of health status recognizes that it is a multidimensional phenomenon. In past decades a patient was often viewed as a human biological entity presenting with a specific complaint that a physician would address (ie, "the gallbladder in Room 110"; Chapter 3, Clinical Ethics: The Art of Medicine, discusses this in greater detail). The World Health Organization (WHO) addressed the goal of achieving a state of complete physical, mental, and social well-being for each individual. Its conception of health recognizes the complexity of all individuals, which is what medicine men and witch doctors of preliterate communities did when they treated the "whole man" for presented symptoms. How can one reconcile this

multidimensional approach to healthcare with the mission of the military in general and military medicine in particular?

The answer is that it is recognized that the primary objective of the armed forces is to maintain a state of operational readiness. Although the variables that contribute to such a state are numerous, it is doubtful that any are of greater importance than the physical well-being of military personnel. Social well-being variables such as family stability, role integration, and active participation with healthcare providers are likely to be important contributors to the efficiency of a system that is primarily focused on this physical well-being. A multidimensional approach, although at first glance seeming to be an additional tasking for the military, actually contributes to the military mission by increasing the well-being of soldiers, their families, and veterans. It is a combat multiplier.

Identification and quantification of relevant dimensions, however, can be difficult. Although dimensions of health such as mortality and life expectancy are clearly of high importance, and easily can be assessed quantitatively, many other salient dimensions, particularly those germane to social

well-being, are more qualitative in nature. Nonetheless, through a mixture of quantitative and qualitative interests, a more eclectic perspective of health appears to have grown in importance to contemporary healthcare consumers—including those eligible for military healthcare. This already complex issue is exacerbated by a continual expansion of the concept of social well-being that has necessitated a broadening of the scope of military medicine. Furthermore, because of constant personnel turnover, the evolution of any concept, including well-being, can be more rapid than it would be in a group that was relatively stable in terms of membership. It thus becomes necessary for the military to constantly resocialize its new members and, at the same time, be altered itself. Before examining this latter dynamic, it is important to first explore voluntary resocialization as it is experienced by the new member of the military.

### **Perspective on Resocialization**

In response to the primary goal of maintaining operational readiness, a major issue for the military relates to the transformation of a civilian mentality, formed on the basis of internalization of larger societal norms, into a military mentality—that is, to mold someone who can be counted on in combat, who will crawl through mud, remain for long periods in ice and snow, survive in desert conditions, who will kill when necessary, and who will give up his life if required. How is this transformation achieved?

The answer is resocialization. This phenomenon contrasts with continuous socialization, which is a slow, gradual process that incorporates into an existent base new material that is reasonably consistent with that which has been learned in the past. In comparison, resocialization represents a transformation process that is intense, occurs more rapidly, and is designed to change the basic values, beliefs, motivations, and self-image of persons.

Even with the recent emphasis on downsizing, approximately 150,000 persons enter the military each year. These new recruits have experienced at least 18 years of continuous civilian socialization. They come into the military with an identity molded by arrangements in the outside world. In order to generate operationally prepared military personnel, new members are stripped of the support that has been provided by these arrangements. Any number of techniques are utilized to accomplish this goal. Barriers are established to isolate the person

from the outside world. This is accomplished by limiting visitation, free time, and time away from the military installation. Claims to past statuses (education, occupation, income, social position) are denied. Trainees are instead responded to in terms of their military status. An important component of this transformation is a replacement of one's "identity kit." Those things that people employ to control how they appear to others—hairstyles, cosmetics, jewelry, clothes, cars—are taken away and replaced by a standard issue or "look," which is uniform in character and uniformly distributed.

From the standpoint of the military, institutional identification fosters organizational commitment; internalization of institutional values influences performance. Internalization will develop intrinsic motivation so that individuals will follow orders if they identify with the institutional values, norms, and goals. The experience of going through "hard times" together (ie, basic training, military academies, or officer candidate school) will promote group identification, commitment, and cohesion. All of these traits are important for military effectiveness. Indeed, it is argued that the stress experienced in training will help prepare the new member for stress that might be experienced later on the battlefield.

Given the severity of traditional training methods and environments, the military eased many of the more demanding parameters, especially those in basic training, with the advent of the All Volunteer Force (AVF) in 1973. This decision was based on the perception that insufficient numbers would volunteer to undergo the traditional rigors of training. However, widespread dissatisfaction with an absence of challenge was registered by recruits, drill instructors, and other training personnel. Consequently, disappointment with lesser expectations resulted in a return to more traditional training methods and procedures.

Since the advent of the AVF, the recruitment and resocialization processes of the military have undergone change, which has been identified by Moskos in his discussion of the institutional/occupational thesis.<sup>3</sup> According to Moskos, on the organizational (macro) level, the military is experiencing a change from an institution to an occupation. On the individual (micro) level, the military is becoming a job in the workplace. This contrasts strongly to the military as a "calling," in the classical Weberian sense, that the traditional military was perceived to share with the clergy and educators.

The shift from an institution to workplace in-



volves a shift from concern with collective well-being to assumptions about self-interest. Accordingly, military recruiters now emphasize financial and job-related aspects. The United States has traveled a long distance from the traditional "Uncle Sam Wants You," to the slogan of the 1990s—"It's a Good Place to Begin," or the more current "I Am an Army of One." Moskos views this change as a linear development. Interestingly, Segal argues that this is more similar to a wave, or curvilinear, pattern. That is, at any given time, and dependent on world conditions, if the military must enter into combat, a return to an institutional format will be observed.<sup>4(p72)</sup> When the going gets tough, the tough get "gung ho," and the job gets transformed into a calling.

Regardless of which perspective one embraces, and even with a focus on marketplace considerations, the military is, and will remain, at least subtly, different from the civilian society. The organizational view remains vertical as opposed to horizontal, that is, military people see themselves as having something in common with those above and below them hierarchically and in different jobs while civilians are more likely to view people who have the same job, even if in another organization, as their primary reference group. Role commitment in the military, then, is much more diffuse. Military personnel perform a much wider range of tasks, including things that are not part of the "job."

Furthermore, integration of the family and the military is more intense than that of the family in civilian occupations. The family is seen as an adjunct to the military system, with institutional demands extended to family members. However, an increasing number of civilian spouses do not believe the military has, or should have, the right to expose them to demands. This civilian-military competition has generated the "greedy institution" conflict argument advanced by Coser,<sup>5(pp89-100)</sup> whereby the military and civilian family members compete for the time and energy of the service member. Accordingly, the resocialization efforts of the military cannot be directed exclusively toward the military members, as they are also part of a family unit.

### **Resocialization and Military Medicine**

Ethically the parameters of healthcare concerns, as they apply to the military, must embrace all of these issues as components of medicine in the military, and must be cognizant of the specific demands of military medicine as they relate to operational

readiness. Although it is generally assumed that military healthcare personnel can make the transition smoothly from the practice of general medicine in the military to the practice of military medicine, most cannot. Indeed, Llewellyn has noted that, "the practice of medicine and surgery in peacetime prepares physicians for war as well as civilian police department duty would prepare infantry for combat, or as well as commercial aviation experience prepares pilots for close air support in wartime."<sup>6(p192)</sup> The point is further emphasized by Smith, who has posited that recognition of the theoretical and practical differences of military medicine and practicing medicine in the military will have dramatic effects on combat preparedness for military healthcare personnel.<sup>7</sup>

The ability to make this transition will depend on the success of resocialization efforts for those who will be called upon to practice military medicine. Complicating the transition is the fact that adaptation to military medicine environments is becoming more demanding as the technological development of weapons continues on a more sophisticated path. Practitioners of military medicine must be familiar with any number of potential dangers that are generally not present in the larger society. Among these are the increased lethality and accuracy of modern weapons, including precision guided-missile threats; major threats of tissue damage through burns, blasts, and crush injuries; and the practice of preventive medicine to reduce the impact of environmental stresses, diseases, and accidental injuries.<sup>7</sup>

It should be further noted that the threat of increased missile usage, nuclear or otherwise, has served to democratize the risk factor of modern warfare. The idea of "democratization of risk" was initially introduced by Lasswell in 1937 as a component of his garrison state construct. His concern was generated by the weapon delivery capacity of the airplane. In the interim, with dramatically increased sophisticated delivery systems, in conjunction with the large areas that would be affected by the destructive power of modern weaponry, "democratization of risk," in effect has expanded to place everyone at risk.<sup>8</sup>

It may well be that military healthcare personnel will have to be more widely dispersed in order to treat those injured over a much wider area. Given this scenario, it is virtually inevitable that the primary mission of military medicine would be compromised, and would give rise to some questions of ethical consideration.

## OVERVIEW OF SOCIETAL INFLUENCES

As America enters the 21st century, it is clear that healthcare is experiencing a major transitional period. As a part of the American culture, military medicine is similarly engaged in altering its parameters, especially in terms of access, quality of care, and cost. Further, it is increasingly recognized that the sense of well-being of military personnel is dramatically affected by the sense of satisfaction with the health of each family member and the delivery of healthcare to all family members. Additionally, the decision whether to remain in the military will be influenced by similar perceptions of those who have previously served and who are eligible for healthcare benefits.<sup>9(p1)</sup> That is, are veterans, with whom military personnel interact or learn about, satisfied with the manner in which military healthcare has met their needs once they are no longer in uniform?

The complexity is increased by two important concerns: (1) the sociodemographic diversity of persons currently serving and those eligible for military healthcare benefits; and (most important for this collection of works) (2) the ethics of military medicine. The following is a discussion regarding ethical delivery of military healthcare to this diverse consumer base within a constantly changing environment.

Despite the focus of this volume, some may perceive a discussion of ethics as superfluous. Most persons see themselves as being ethical people who, when confronted by a choice, do the right thing. Nevertheless, there is a current explosion of interest regarding ethical considerations that is affecting a vast array of social institutions, including that of medicine. Indeed, every medical school now has at least one ethicist as a faculty member. Further, bibliographic citations germane to ethics have expanded to where they can only be described as voluminous.

The growth of public interest in ethics has significantly influenced the manner in which researchers plan and conduct their research, as well as the way in which practitioners present themselves to consumers of their skills. Although initial concern focused on biomedical research and the clear potential for harm to those willing to participate in such empirical efforts, attention has expanded to include any area of inquiry or presentation that involves human respondents. This does not mean that researchers or practitioners were previously without ethics or concern for human respondents or consumers, but such concern had traditionally been

passed from generation to generation by word of mouth, mentor to student, and in the classroom. That practice has been supplanted with more "formalized" concern.

Ethical concern is not limited to researchers and practitioners. Governmental policy, as it effects eligibility for receipt of care, is also of significant interest. That policy has changed substantially over the past several decades in response to events within the overall society. During the 1960s, for instance, America witnessed a number of radical movements, with subsequent social change. The civil rights movement, beginning with the 1954 *Brown v Board of Education* desegregation decision, grew at the same time that emerging feminism reflected a substantive ideological shift in appropriate-inappropriate social roles for men and women, and the antiwar movement, in protest of America's involvement in Vietnam, forced many citizens to reevaluate the right and proper role of the government and the military in political policies. The occasion of these historical benchmarks signaled cultural changes that were inevitably to find expression in altered sociodemographic profiles within the US armed forces.

Significantly, gender, racial and ethnic identities have been differentially represented following the advent of the AVF. That is, the number and proportion of minorities (women, African-Americans, and Hispanic Americans) serving in the armed forces have increased. As a part of the larger society, military policy and engagement were inevitably and inextricably interwoven by both the civil and the equal rights movements.

The changes that have occurred were not isolated to active duty concerns. From the perspective of veterans of US military service, the importance of ethical considerations has been further underlined by the controversies regarding the legitimacy of posttraumatic stress disorder (PTSD) as a psychiatric diagnosis, and the consequences of exposure to Agent Orange during the Vietnam conflict. In the face of a decade of extreme opposition, veterans of the Vietnam War were successful in getting PTSD included in the American Psychiatric Association's third edition of *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III), published in 1980, as well as the subsequent revised version (DSM-III-R). They also gained treatment and compensation for health conditions associated with exposure to the herbicide, Agent Orange. The narrative of these two

struggles is offered through Scott's examination of the politics of readjustment of Vietnam veterans.<sup>10</sup> He describes the inevitable imbalance between the indebtedness a nation has to its warriors and the postwar unwillingness to provide adequate gratitude and retribution. Such issues provide strong support for the importance of the ethics of policy formation and implementation. Although Scott has chronicled some dramatic victories for the Vietnam veteran, recovery has been less than total.

The ethical considerations of political policy for the Vietnam veteran may be mirrored by similar considerations for Persian Gulf veterans whose illnesses, including fatigue, rashes, and tumors, have stymied researchers. Reaction to the so-called "Gulf War syndrome" has been more complicated as a number of expert panels have failed to locate evidence of a new or unique Gulf-War-related disease. Nevertheless, there does seem to be a medical consensus that the variety of symptoms presented by Persian Gulf War veterans may be connected to their service within that environment.

In contrast to the political battle that raged over PTSD, Congress quickly responded to the presentation of Gulf War illnesses by providing temporary disability benefits, funding for additional research, and allocating funds for marriage and family counseling. This recognition of the legitimacy of presented symptoms, which are possibly reflective of exposure to health-threatening stimuli while in the service of the United States, suggests a more appropriate ethical posture.

Additionally, the Veteran's Administration has responded favorably by making available a complete physical examination to all Persian Gulf veterans; a 24-hours-per-day information center; a designated physician at every VA medical center to accommodate examinations, receive updated information and educational materials, and to provide follow-up care; and Persian Gulf Referral Centers.<sup>11</sup> More than 100,000 of the approximately 697,000 men and women who served in the Persian Gulf War (1990–1991) have reported symptoms. This number may expand in the future.

Despite the early congressional response, the Department of Defense (DoD) was cautious in its response to these reports of exposure to various

agents. Ultimately, President Clinton, in an unusual move, appointed an oversight board to assist the direction of the DoD investigation.<sup>12</sup> An initially emphasized hypothesis of the cause of the Gulf War symptoms was stress. Additional inquiry has resulted in the acknowledgment that these symptoms may evolve from any number of environmental substances including the above noted depleted uranium, pesticides, battlefield drugs, and even nerve gas. Unfortunately, the absence of baseline data on the health of military personnel, and the lack of reliable exposure data renders it difficult to be specific in the identification of the cause(s) of the symptoms.<sup>13(p1)</sup> The cause(s) of Gulf War illnesses, however, as well as the treatment of such, continue to be influenced by an inextricable entanglement of political, medical, and social pressures.

In essence, it is here argued that there is a growing recognition that military healthcare must be responsive to the changing environments of the civilian society that it serves. Although it is widely acknowledged that the military engages in dramatic resocialization efforts in order to satisfactorily train personnel for operational readiness, social changes may dictate modification of those resocialization efforts, including the breakdown of artificial barriers and facilitation of interactive cooperation, in terms of the delivery and receipt of military healthcare for persons of different subcultural backgrounds.

The dual perspectives of general well-being and resocialization have not been traditionally included under the healthcare umbrella. They are addressed here, however, in recognition of the appropriateness of the World Health Organization's objective of health and social well-being. Further, exclusion of specific social variables such as racial-ethnic health considerations, family health, and health issues unique to women and homosexuals may have been due to a belief that these concerns were of a temporary nature. It is not likely that these issues will "fade away." Assuming for a moment, however, that these social concerns are all passing societal fads, a great deal of transferable insight might be gained by the study of any social pathology. The parallels that are currently being drawn between the integration of African-Americans and women as minority components of the military offer but one example.

## **GENDER CONSIDERATIONS**

A discussion of military healthcare delivery to women must include a number of population segments. Principal among these are the women who

serve as members of the military, and those who are civilian spouses (also often referred to as "military wives") of military personnel. Although civil-

ian men may be spouses of military personnel, the overwhelming majority of civilian spouses are female. Beyond personal health issues, these military wives are concerned with family health issues, and these will be addressed in this section as well.

### **Women in the Armed Forces**

Historically, one of the central concerns regarding women's utilization in the military has been the effect of service on their health. Similarly, concern has been expressed regarding the effect of women's health status on operational readiness.<sup>14(p75)</sup> During World War II, for instance, gynecological and obstetrical issues were the most frequently cited concerns regarding women's participation in the armed forces.<sup>15</sup> Although women did have 36% more sick calls than men, 70% more colds, and twice the rate of dysentery, pregnancy rates were so low that a special pregnancy policy was not enacted.<sup>15</sup> Indeed, the higher sick call rates for women were viewed positively as they were perceived by the Surgeon General's Office as preventive medicine. In contrast, men were much more likely, for example, to seek medical treatment for pneumonia, rheumatic fever, and other conditions that called for longer hospital stays<sup>15</sup> and therefore functioned as a greater interference to the maintenance of operational readiness.

There has been a very large increase in the proportion of the armed services composed of women since the advent of the AVF in 1973. When America's armed forces began to draw their personnel from volunteers, women made up less than 2% of America's military manpower. The female proportion today is closer to 14%, although the percentage of women within the individual branches differs significantly. The US Air Force is the most receptive, with approximately 18% of its members being female, while the US Marine Corps is the least so, with only 5% of its membership composed of women.<sup>16</sup> These differences likely reflect the differing missions of the services, the former being more technological, while the latter is more directly involved in combat. Definition of appropriate roles for women to enact within the military also has undergone significant expansion. Women are now included within the complement of combatants, although the individual branches of the service have expanded their numbers and opportunities differentially.

In response to the changing roles of women in the military, the Department of Defense appointed a task force in the late 1980s to study relevant issues. One of these concerns was the adequacy of medical care for women's health needs.<sup>17(p32)</sup> As be-

fore, the focus was on the effect of service on women's health, and the effect of women's health on operational readiness. Health issues that women have in common with men were also addressed. For example, although significantly greater for men, women also compromise readiness through illicit drug usage, smoking, and their consumption of alcohol. Heavy drinking and being able to "hold one's liquor" have traditionally been assessments "of suitability of the demanding masculine military role."<sup>18(p133)</sup> Resocialization efforts are reflected in DoD policy that is oriented toward preventing and minimizing pejorative effects of heavy alcohol, drug, and tobacco use on military performance, and to encourage behavior that would contribute to optimum health and fitness.

In a methodologically sophisticated comparison of data gathered from five worldwide surveys of military personnel, Bray and colleagues<sup>19</sup> determined that the overall use of these substances among military personnel has declined due to effective preventive substance use programs, the promotion of health programs, reduced rates of smoking and illicit drug usage within the civilian population from which military personnel are recruited, and an overall improvement of quality of recruits. Because some female and male recruits continue to use these substances the proposition that missed duty time can and will result from these poor health habits can be reasonably advanced.

On another dimension, it is clear that each environment in which persons are located presents a different set of physical and chemical agents that may serve as health risks. Although this is obviously true for male and female personnel, the expanding military occupational opportunities for women members of the military offer additional concern. For instance, according to Kanter,<sup>20</sup> women may experience stress because of their minority status within a predominantly male institution. (He also notes that women would be expected to experience greater stress until their numbers exceed 15%–20% of the total.) Although the frequency of sexual harassment is not currently quantifiable, it is nonetheless a stressful experience for most women.

Hoiberg and White<sup>14</sup> posited that these environmental, occupational, and social-psychological factors might well contribute to an increased risk of ill health among female military personnel. In the early years of the AVF, as the number of women, and their proportion of the total force, began to increase, their hospitalization rates for virtually all diagnostic categories, as well as for psychosocial stress related disorders such as transient situational



disturbances, neuroses, personality disorders, and gastrointestinal problems, were higher than those reported for men.<sup>14(p75)</sup> However, in a 15-year longitudinal study of the health status of enlisted women in the US Navy, and a comparison with women members of other branches of the service, Hoiberg and White concluded that the overall health levels of female military personnel had not worsened, but actually improved.<sup>14(pp89–90)</sup> This is likely to reflect a time of growing numbers and expanded occupational opportunities. Increases and decreases in hospitalization rates, dependent on diagnostic categories, were seen during this 15-year period, as were variant rates across cohort groups. One important category that reflected an increase in hospitalization rates was that of pregnancy. Indeed, this category accounted for one-third of the admissions during this 15-year period. (It should be noted that the overwhelming majority of women in the military are within the fecund age range as defined by the Bureau of the Census, ie, 15–44.)

This rather dramatic observation provides an opportunity to examine a military healthcare policy from practical and ethical perspectives. Traditionally, female military personnel who became pregnant were automatically discharged. Pragmatically this policy might have reduced immediate healthcare costs. However, long-term financial expenditures were probably increased because of it. Among other cost considerations, such as uniforms and equipment, recruitment and training expenses related to replacement efforts most certainly exceeded the price of treatment for pregnancy and delivery.

Further, as the AVF has expanded its reliance on females to satisfy manpower needs, the value of retaining trained personnel has increased. This is particularly important to note as women are invited to join the ranks of an increasing number of military occupational specialties. As more women avail themselves of this opportunity, the issue of training costs, including time required to complete training, for highly skilled personnel becomes a more central concern.

The ethical argument fits “hand in glove” with the practical considerations. From an ethical perspective, it is clearly unfair to punish females for becoming pregnant by expulsion when the participation of a male is required for the attainment of that status. Further, it has been suggested that women might be less inclined to experience long and difficult training if they were confronted with an automatic discharge if they became pregnant. Therefore, it is argued here that the change in pregnancy policy of the military that permits women

who become pregnant to remain in the military if they wish, reflects an ethically correct decision. This change is also perceived to be economically sound, and to contribute positively to the primary goal of operational readiness.

Similarly, a second major category of admissions are those for conditions related to pregnancy. These include spontaneous abortions, disease of the ovary, and symptoms of the genitourinary system. In the same manner that the above argument regarding pregnancy was advanced, it is perceived to be crucial, from an ethical perspective, to afford this category substantial analysis. Are these conditions reflective of possible exposure to occupational reproduction hazards, such as biological or chemical agents, radiation, or high stress levels?

Data from the Hoiberg and White study indicate that women are most susceptible to stress-related conditions during the first year of their service. These data indicate a need for a more comprehensive effort to prepare women for a military career. It is my opinion that the more recent move toward gender-mixed basic training is an ethical and responsible move toward that end, and reflects a major change in the thrust of military resocialization efforts. Candidly, however, the large number of sexual abuse cases experienced by the armed forces during the second half of the 1990s generated substantial additional reconsideration of this issue.

Hospital rates for mental disorders, respiratory and infectious diseases, as well as accidental injury rates declined during the time of the study. The improvement of occupational training methods has influenced the latter.<sup>14(pp79–90)</sup> All of these conditions have been aided, however, by the collective DoD directives mandating a healthier lifestyle. These directives have become an inherent component of the resocialization process of military personnel.<sup>21</sup>

Although these data are encouraging and represent findings that are similar to those noted for civilian workers, the military must provide somewhat different specialty practitioners. Military medicine was specifically designed to provide as efficient care as possible to those wounded in battle. For the most part, this called for a physician staff composed primarily, if not exclusively, of battlefield surgeons. The importance of this component to victory may be noted by a historically greater loss of personnel for medical reasons than loss to enemy fire. For example, during the War Between the States (ie, the American Civil War) it is estimated that the ratio of deaths from disease versus combat was 2:1 for Union forces and 3:1 for Confederate forces.<sup>22</sup>

With the dramatic increase in female personnel,

in conjunction with the force becoming one in which the majority is married, specialists of a wide variety, including obstetricians, gynecologists, pediatricians, and psychiatrists, have become ethically, if not legally, mandated. This change in medical personnel has required a substantial resocialization effort, especially of the senior commissioned and noncommissioned officers who came into the military when it was predominantly a bachelor and male-dominated institution.

### **Military Care Issues Related to Military Spouses and Children**

Although the primary mission of the Military Health Services System (MHSS) is to maintain the health of military personnel for the purpose of operational readiness, the military medical system provides care to family members and retirees and their family members where space and professional services are available. Even though the reduction in force size has affected the number of potential beneficiaries, there remain within the present military healthcare system approximately 8.5 million persons eligible for healthcare programs.<sup>23</sup> A substantial proportion of those eligible are civilian spouses and dependent children. It is impossible for military medical care providers to accurately predict for whom or for what reason care will be requested from the potential consumer population. It must be recognized also that healthcare demands will come from multiple sources competing for scarce resources (ie, competing branches of the services including base hospitals, PRIMUS [Primary Care for the Uniformed Services] and NAVCARE [Navy Care] clinic facilities, Uniformed Services Treatment Facilities, TRICARE [Tri-Service Care], Medicare, Veterans Administration hospitals, and other third-party insurers, including health maintenance organizations [HMOs] and preferred provider organizations [PPOs]).<sup>24</sup> In response to the complexity of beneficiaries, the provider network and expanding costs, DoD has initiated implementation of a new management initiative labeled TRICARE.

Since 1967 civilian healthcare has been provided to military dependents, retirees, and retiree's dependents through the fee for service Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). CHAMPUS was initiated to provide healthcare benefits to retired personnel until they were 65 years of age and eligible for Medicare. The proportion of the eligible population of beneficiaries grew from about 8% in 1950 to over 50% in 1997.

A similar rise in the number of beneficiaries occurred after the armed services became an all volunteer force in 1973. This signaled the beginning of a growing population of active duty personnel who are married. Although civilian spouses and children could receive healthcare at military medical facilities, such care was available also through CHAMPUS. Beginning in 1995, DoD began to provide beneficiaries with TRICARE, or three selection options. The three legs of this program include: (1) receipt of care through a DoD managed health maintenance organization (HMO); (2) receipt of care through a preferred provider organization (PPO); or (3) continued use of CHAMPUS.<sup>25</sup>

As noted, an important reason for the advent of TRICARE was to reduce healthcare expenditures. Success has not been achieved on this dimension. As a result, additional action is under consideration. One idea currently being tested is Medicare subvention funding. Under this program, MHSS would receive payment from Medicare for care provided military retirees 65 years of age and older. Reactions to this program have been mixed.<sup>26</sup> Other options for retirees currently under consideration involve extending access to the Federal Employees Health Benefits Program (FEHBP) and extending eligibility for TRICARE.<sup>26(p2)</sup>

In light of the smaller number of active duty personnel, a 15% reduction in military medical personnel, and one-third fewer military hospitals, some students of military healthcare have, less generously, proposed a major curtailment of those eligible to receive military healthcare. The argument is to serve only active duty personnel. Although this type of proposal is not likely to be seriously considered, it does symbolize the vulnerability of ethical and moral considerations when confronted with the reality of economic constraints.

Beyond the organization of care options, mention should be made of complaints about care received in military medical facilities. Such complaints have been ongoing since the availability of healthcare to military dependents (after the Korean War) and continued into the 1990s. Some consumer criticism is justified and some can be explained by factors unique to the military. For example, because military personnel and their family members are a transient population, due to the reassignment system, there is limited opportunity to maintain continuity of care. Continuous care provided by the same healthcare professional(s) has long been a significant variable in accounting for the degree of satisfaction expressed by consumers of healthcare. Patients utilizing civilian health maintenance organi-

zations have, in recent years, expressed the same dissatisfaction. Burrelli<sup>27</sup> has noted that mobility also contributes to dissatisfaction because of an inconsistent quality of services offered at different installations. Indeed, it can be argued reasonably that because mobility increases one's exposure to treatment by multiple healthcare professionals there is an inevitable increase in recognition and awareness of the disparity of care offered.

Dissatisfaction, of course, can be profitably used to identify areas of concern that can and should be addressed. With regard to this discussion, one of the most important latent functions of healthcare, as provided by the military, is the level of satisfaction registered by all members of the family unit. Orthner<sup>28</sup> and Stanley, Segal, and Laughton<sup>29</sup> have noted in research regarding family contributions to work commitments that spouse support was the most important predictor of a career commitment among married men in the military. Thus, satisfaction with healthcare received by a civilian spouse and

children disproportionately influences reenlistment decisions.

This is increasingly important to recognize within the AVF, where maintenance of the historical 50-50 mix between careerist and first-termers is sought. Ensuring that one of every two volunteers reenlists requires addressing the concerns of these people. Given that the majority of the force is now married, the contentment of the civilian spouse assumes additional importance. Discontentment with military healthcare may encourage a larger proportion of first term enlistees to decline an invitation to remain. Indeed, the availability of military healthcare has traditionally been a more important part of the recruitment and retention strategies for military personnel than for private employers. As such, healthcare is a critical issue for the overall strategic posture and effectiveness of US military organizations. (Exhibit 22-1 offers background information on healthcare for military family members and suggests a system for providing that care in the future.)

## SEXUAL PREFERENCE

It is difficult to conceive of any issue that has or could generate the level of controversy observed regarding issues of sexual preference for individuals serving in the US armed services. Viewed retrospectively, the integration of African-Americans and the increasing acceptance of women in roles previously considered inappropriate, including that of combatants, have been hugely successful in resocializing those who so strongly resented the presence of African-Americans and women. Indeed, the old traditional notion that democracy has no place in the military, and would only serve to undermine good order, is no longer chanted with such reverence. Similar success in the area of acceptance of sexual preference, and with it the integration of homosexuals into the military, however, is more problematic.

The United States is not the first country to debate the issue of homosexuals serving in the military. Most Western democracies with an industrialized economy have confronted this issue in one form or another. Inevitably, industrialization, accompanied by urbanization, has functioned to introduce dramatic social change. One significant evolution has been the democratic ethos that extends the equality of citizenship rights to previously excluded categories of persons,<sup>30(p261)</sup> for example, within the US military. This process has served to enhance capability and increase manpower, and has resulted in the integration of African-Americans

and the increasing acceptance of women in nontraditional military roles.

The social-historical context of the country, the military, and their interrelationship will be the backdrop in determining future policies and practices regarding homosexuals within the US military. Scott and Stanley<sup>30</sup> have suggested that the issue of homosexuality provides a series of challenges to the military, not as a causal variable, but as one of the changes introduced through modernization. Indeed, prior to the evolution of any degree of tolerance for homosexuality, the traditional reproductive and economic functions of the family experienced significant redefinition.<sup>30(p262)</sup> The weakening of institutions has resulted in placing greater priority on individualism, personal freedom, and satisfaction than on group interests. However, dispute associated with issues surrounding homosexuality continues, as is noted by the moral imperatives articulated by the conservative perspective and the emphasis on civil rights and equality of opportunity presented by more liberal advocates.

Societal views of homosexuality have undergone change in the past few decades. Pursuant to general *American Psychological Association* guidelines, more persons now perceive homosexuality as a lifestyle, deviant or alternative, chosen or genetically determined, than as a pathology. An increased level of tolerance has resulted in greater support in public sectors such as employment and housing, but

## EXHIBIT 22-1

### THE PAST, PRESENT, AND FUTURE OF HEALTHCARE FOR RETIREES AND FAMILY MEMBERS

Although the statutory authority for the provision of healthcare was not clear historically, the origin of the belief that easy-access and high-quality healthcare is a right of members of the military and their family members as well as retirees and their family members has been explained by Burrelli.

Health care for retirees and dependents has always been considered a somewhat ancillary function of the military health care system. Prior to 1956, the statutory authority to provide health care to retirees and dependents was not clear. The Dependents' Medical Care Act (Public Law 84-569); June 7, 1956; 70 Stat. 250) described and defined retiree/dependent eligibility for health care at military facilities as being on a space available basis. Authority was also provided to care for retirees and their dependents at these facilities (without entitlement) on a space available basis. This legislation also authorized the imposition of charges for outpatient care for such dependents as determined by the Secretary of Defense. Although no authority for entitlements was extended to retirees and their dependents, the availability of health care was almost assured given the small number of such persons. Therefore, while not legally authorized, for many the "promise" of "free" health care "for life" was functionally true. This "promise," it is widely believed, was and continues to be a useful tool for recruiting and retention purposes.<sup>1(p2)</sup>

Even though it is impossible to predict the rate of usage by those who perceive themselves to be eligible, the annual requests by number and cost have consistently surpassed the estimates put forth by the Department of Defense.<sup>2(p551)</sup> If the "promise" of "free" healthcare "for life" is to continue within an increasingly complex environment, attention must be directed to the manner in which it will be delivered. Blair, Stanley, and Whitehead<sup>2</sup> have proposed a stakeholder management strategy to transform the complex relationships within and between the variety of organizations comprising the military healthcare system into a logical, systematic framework that can be communicated and acted on, such as that proposed by Blair and Fottler.<sup>3(p556)</sup>

Stakeholders within the military healthcare system are numerous and any effort of management will be complex. They include beneficiaries, providers, politicians, and a number of special interest groups such as the American Medical Association (AMA) and the American Association of Retired Persons (AARP). Military healthcare also exists in the public sector and is thereby the target of political pressures from diverse patient groups represented by enlisted and officer, active and retired, and veterans groups as well as that of the US Congress. Clearly, interests and motivations of these diverse stakeholders are not always congruent. However, to survive the dramatic changes currently facing the military healthcare system, healthcare leaders must improve their management of internal and external stakeholders.

Sources: (1) Burrelli DF. *Military Health Care/CHAMPUS Management Initiatives*, CRS Report for Congress 91-420F; Washington, DC: Congressional Research Service, Library of Congress; May 1991: 2. (2) Blair JD, Stanley J, Whitehead CJ. A stakeholder management perspective on military health care. *Armed Forces Soc.* 1992;18(4):548-575. (3) Blair JD, Fottler MD. *Challenges in Health Care Management: Strategic Perspectives for Managing Key Stakeholders*. San Francisco: Jossey Bass; 1990.

most persons remain reluctant to extend equal opportunities in the more personal areas such as the right to marry or adopt children. Hesitancy about the latter holds implications for the status of homosexuals in American society. The US military is inevitably affected by this conflicting configuration of tolerance and intolerance. By altering the exclusionary ban within the military, powerful feelings and political components, in and outside of the military, continue to experience confrontation.

It can be argued that the general phenomenon of modernization has worked to weaken the boundaries between the military and society and that the meaning of service has been altered. Traditionally, military service was perceived as a rite of passage

into manhood and an obligation of citizenship. More recently, serving in the armed forces has begun to be viewed as a right versus obligation of citizenship, and represents a path through which additional rights may be achieved. As Moskos' institutional/occupational thesis has suggested, military service is now viewed as affording employment opportunities and benefits, rather than as a "calling."

The collective role of the military has also undergone change. Although the central role remains that of maintenance of operational readiness (ie, to protect and defend the nation), supplemental tasks (ie, peacekeeping) and humanitarian functions (ie, relief and rescue missions) have emerged. These changing roles have encouraged successful resocial-



ization efforts toward the inclusion of previously excluded groups, especially women. Demand for traditional masculine skills has been replaced, or at least reduced, by the increasing need for technical, administrative, clerical, social work, and healthcare functions.

Despite these restructuring changes, resistance to the integration of homosexuals remains strong. This resistance, however, is not universal, and evidence indicates that it is much more likely to be expressed by male than female service members. Males have reported a variety of concerns regarding such issues as potential threats to morale, cohesion, and effectiveness associated with the integration of homosexuals. Although advocates of civil rights and equal opportunity for homosexuals have argued similarities with the integration of African-Americans and women, a number of differences can be identified. Skin color, race, and gender are seen as simple biological traits. In contrast, homosexuality has behavioral components that challenge traditional values that are expressed in assumptions about morality, sexuality, and masculinity. Given that the presence of women called into question the military as a masculine domain, homosexuality extends the question.

The variable of timing, in conjunction with other issues of importance to the society, is one of the most important determinants of the likelihood of an element of social change being adopted or rejected. The timing of the introduction of the ideas of integration of African-Americans and women are illustrative. Successful integration of African-Americans was aided by the military necessity of manpower for the Korean War. Integration of women was facilitated by the move toward the AVF and personnel needs related to technology. However, contemporary reduced manpower needs do not argue for recognition of homosexuals. Further, cultural ambivalence and an absence of a supportive legal environment will likely impede the integration of gays and lesbians into the larger society and the military as a microcosm thereof.<sup>30(pp262-263)</sup>

Nevertheless, homosexuality in the military continues to receive increasing attention from academic and lay publications. The complexity of the issue from the perspective of individual and civil rights, legalities of exclusion-inclusion, profiles of other nations' integrative efforts, and debate regarding ethical and moral considerations precludes easy and simplistic solutions, such as the current "Don't Ask, Don't Tell" policy. However, the thought and reason represented in a continued dialogue will enhance understanding and provide a backdrop for the evolution of social and military policy.

## **The Impact of Acquired Immunodeficiency Syndrome**

Practitioners of healthcare within the military have long dealt with sexually transmitted diseases (STDs). Venereal diseases such as syphilis or gonorrhea, however, were primarily transmitted through heterosexual intercourse. In order to respond appropriately to an STD that was originally related to homosexual behavior, some resocialization effort was required in order for military healthcare professionals to begin to accommodate those persons infected with the human immunodeficiency virus (HIV), which can become acquired immunodeficiency syndrome (AIDS). AIDS is a contagious and fatal disease that has generated considerable controversy throughout the world. Upon the discovery of AIDS in 1984, initial research indicated that the virus was transmitted sexually through bodily fluids, the sharing of needles by intravenous (IV) drug users, or contact with tainted blood. Although one can obviously contract HIV / AIDS through any number of activities, including heterosexual intercourse, AIDS cases in the United States had been concentrated among those individuals engaging in homosexual acts and IV drug usage. These high-risk behaviors had accounted for the vast majority of all AIDS cases.<sup>31(p453)</sup> Increasing incidence of transmission through heterosexual contact will alter this profile in years to come.

Perhaps a brief note regarding progress in the treatment of those experiencing HIV / AIDS will be helpful. The very early research for drugs to block the replication and growth of the virus experienced a dramatically positive result with the discovery of azidothymidine (AZT). This drug, first tested with patients in July 1985, was demonstrated to have such efficacy in retarding the disease progression that the US Food and Drug Administration (FDA) approved it for marketing in March 1987.<sup>32(p159)</sup> Inevitably, such success elevated expectations for a cure to be developed quickly. However, only four additional drugs, zidovudine, didanosine, zalcitabine, and stavudine, all with limited effectiveness, were licensed by the FDA through the following decade. This slowing of progress introduced the question of whether a combination of drugs could enhance the success of AZT.<sup>32(pp159-161)</sup>

In response, a number of research protocols with various drug combinations were initiated. Early results of some of these combinations are promising for those fortunate enough to have access to, and respond to, such therapy. The "cocktail" mixture of drugs seems to have slowed the progression of the disease and stimulated hope for many. As

with the introduction of AZT, however, the hope may well be false hope. That is, some may believe that if they become infected it will not constitute a significant problem because of the available drug therapies.

AIDS has been 100% fatal in the past. Even though the cocktail has had dramatic effects on the progression of the disease, it is too early to cite a cure, or even permanent management of the disease. Further, and as with other diseases, HIV / AIDS is hosted and develops differently in different individuals. It must be remembered that each of us is a unique biochemical organism. Consequently, no two persons will receive treatment modalities with precisely the same results.

While the incidence of AIDS has continued to increase within the general population, the rate among military applicants has declined, as has the number who originally tested negative, but subsequently registered a positive result—the seroconversion rate.<sup>31(p454)</sup> These positive observations concerning military applicants are reflective of the ability of the Department of Defense to assume the lead in dealing with contagious diseases. Because of the military's ability to introduce large-scale observation and treatment, it has become an ideal institution within which at least some societal policies can be introduced and examined.

The assumption of an active role by the military regarding HIV / AIDS, however, has not been embraced by all armed forces personnel. Initially, the human immunodeficiency virus and AIDS were identified primarily among homosexuals and IV drug users, and that perception has been slow to change. These are categories of persons whom the military has prohibited from enlisting in the past. Even though the military in the mid-1990s introduced the "Don't Ask, Don't Tell" policy for homosexuals, the implementation and interpretation of this policy have been inconsistent within and across the services. Controversy regarding individual civil rights and privacy versus protection of the general public has surrounded DoD policy related to those who test positive. In addressing the operational readiness of the force, DoD policy has attempted to balance these competing perspectives.<sup>31(p462)</sup>

### **Military Policy Regarding Acquired Immuno-deficiency Syndrome**

Among the US civilian population, concern with HIV / AIDS is functioning to pressure legislators throughout the country to pass laws to protect the public. This reflects a shift of focus from earlier laws

to protect the civil liberties of HIV-infected persons, to laws that, in some cases, punish those who knowingly place others at risk of contracting the virus. At least 29 states have enacted such legislation.<sup>33</sup> Current DoD policy calls for repeated testing of personnel, screening of blood supplies, and the development of educational and surveillance initiatives. Beyond these considerations, and similar to the evolving national orientation, continued involvement in sexual relations by those positively tested, without informing their partner(s) of their infection, can and has resulted in courts-martial.<sup>34-36</sup> Conversely, civilian dependents of military personnel who test positively for HIV / AIDS offer a different set of concerns as they cannot be forced into testing, and are outside of the sociomedical constraints of the military.<sup>31(p470)</sup>

In addition, current policy does not call for the removal of HIV-infected persons from the military environment. It is clear that if such an aggressive policy were adopted, the rights of the uninfected, civilian and military, would be more protected and the readiness of the force would be enhanced. However, pursuit of such a restrictive policy would violate some perceptions of civil rights. Indeed, it can be argued that the overall morbidity rates of the entire society could be reduced by mandating thorough physical exams every year, 6 months, or 3 months, declaring every product linked with cancer illegal, introducing a required level of physical fitness, body fat percentage, strength level, and so forth. Parenthetically, it should be noted that physical fitness parameters of well-being have already been institutionalized within the US military. Societal introduction of these considerations, however, would require an abrogation of individual freedom and are clearly counter to the idea of well-being on the mental and social dimensions.

An ethical, practical, and legal posture of the DoD represented by a stringent policy to protect people in foreign countries from infection by service persons assigned to military installations outside of the United States. DoD policy requires military personnel who test positively for HIV / AIDS to return to the United States, and those already infected with the virus are not assigned to foreign installations. At this time, military personnel infected with HIV / AIDS are treated similarly to personnel with other contagious, debilitating, or life-threatening illness, even though the condition presents concerns that other diseases do not. Most importantly, most of those infected are homosexual males or intravenous drug users. Historically, these two categories have either been excluded from military

service or have been the targets of antagonism. With the introduction of testing procedures, persons so categorized, especially homosexuals, feared a “witch hunt” and the employment of “Gestapo-like” tactics in locating and sanctioning them. However, comments of this nature have diminished considerably, a fact that points to a more sound policy.

Distribution of negative and often untrue informa-

tion remains a concern for US foreign relations. One claim, put forth by Soviet scientists and later retracted, argued that AIDS was a biological war product engineered by US Army scientists.<sup>31(p472)</sup> The consequences and concerns are exacerbated for US military relations when such pejorative propaganda is subscribed to by the uninformed and isolated, especially in the less-developed countries of the world.

## VETERANS' HEALTHCARE ISSUES AND THE POLITICS OF ELIGIBILITY

During times of relative peace it is probable that competing dimensions for the provision of healthcare converge more acutely at the issue of healthcare for non-active-duty military beneficiaries, especially for those who enjoy veteran status. Given the reality of finite resources, and especially during periods of budgetary restraint, the ethical questions of who is to be afforded healthcare, and where, are underscored.

Historically, the evaluative manner in which the culture reacts to a given military engagement helps to define the manner in which returning veterans adjust to reentry into civilian life. Scott has identified two significant reasons that healthcare issues are important for the readjustment of the veteran.<sup>10(p592)</sup> The first is that healthcare issues are related to what the society defines as normal experiences of military personnel during and after a war. Second, the issues of liability and compensation for injuries and disabilities acquired as a result of military service become pressing questions. With the implied subjectivity of these two statements, determination of eligibility for medical attention by veterans can easily become a controversial issue. Again, Scott is helpful in describing the dilemma that has characterized requests by veterans for medical treatment and compensation for service-connected injuries and disease.<sup>10(p594)</sup>

First, requests may be reflective of unanticipated consequences of new weaponry. If presented pathologies exceed current parameters of understanding, eligibility for healthcare may be denied. Indeed, it is almost certain that such will occur following each armed conflict in which the United States is involved. Clear knowledge of effects from short- and long-term exposure to US weaponry is not known (for example, exposure to Agent Orange during the Vietnam conflict), let alone the arsenals of enemy forces. Again, economic and ethical considerations coincide. That is, an argument for reduced medical expenditures from a finite budget may well transcend ethically appropriate considerations. Further, and unfortunately, when a mo-

dality of treatment is granted, it may be the product of misdiagnosis.

Second, service-connected health problems of veterans may not surface until more than a year after their discharge. Diseases that are not manifested for more than a year after service exposure increase the difficulty of establishing a cause-and-effect relationship. Competing explanations for the occurrence of the disease may be introduced without a satisfactory way of judging the relative merits of the counterhypotheses.

Third, conflict arises between the perception that the veteran is deserving, and the finite resources available for the provision of care. As Scott notes, “the certification of sickness among veterans...often is bitterly contested as altruistic service clashes with fiscal constraints and political realities.”<sup>10(pp594-595)</sup> It is clear that presentation of symptoms of health problems and consequential treatment is more expansive, and considerably more complex, than these two variables. Among others, political and economic variables, in conjunction with ethical considerations, must be included.

In order to facilitate an understanding of the political complexity of veterans' healthcare issues, it is necessary to turn to some distinctions that medical sociologists have traditionally found helpful. Specifically, social scientists have differentiated the terms of disease, illness, and health,<sup>10(p593),37</sup> and provided a number of approaches for their examination. *Disease* is used to identify some impairment to bodily functions; *illness* refers to the self-perception that one does not feel well or that something is wrong; and *sickness* is used to define the affirmation by a medically certified practitioner that one has a disease or is legitimately not feeling well.

Interpretation of these distinctions is further assisted by an understanding of a variety of behavioral-science approaches. Mechanic has identified four of these.<sup>38</sup> The first is the cultural approach, which focuses on the manner in which illness is perceived, presented, and received. For example, differing lifestyles and values are reflected in sig-

nificantly different health patterns for divergent work and family organizational patterns. In essence, an individual's reception or rejection of changes for a healthier lifestyle will reflect the values of the cultural or subcultural environments.

The second is the social-psychological approach, which overlaps with the cultural, and is concerned with social interaction, communication, and how people influence each other. This approach is particularly interesting in the American culture because independence is so highly valued. Despite the general emphasis on efficacy, many social areas, including healthcare, are perceived by many as a reflection of their development, social position, and life situation.

The third approach is social. Overlap with the other approaches is again observable. Followers of this orientation are concerned with how people accommodate social demands within their physical and economic environments. This approach also encompasses legitimacy to the claim of illness, and appropriate enactment of the sick role.

The societal approach is the final orientation and, despite clearly being related to those previously noted, it is the one that is most germane to this discussion. This focus is on the relationship between health and other social institutions, including the armed forces. Although the societal approach might be more abstract, it does hold that different social components can be identified and the relationships between them can be examined, for instance, the relationships between health institutions, the armed forces, law, and family.

Finally, clarification is afforded by two perspectives that influence reactions to this distinction of terms and approaches.<sup>10,39</sup> The most prevalent is the objectivist school. According to this perspective, evidence of disease will accumulate, thereby inviting discovery. Although not devoid of political considerations, advocates of this methodological position believe that through the appropriate employment of scientific tools, factual evidence of sickness will become "objectively" observable.

The objectivist perspective is rather sharply contrasted by the constructivist school, which holds that legitimization of a sickness is primarily a political process. Proponents of this view identify specific types of evidence and employ available resources to validate any claims of sickness. Constructivists do not subscribe to the necessity of a linkage between injury or disease and the probability of recognition. Rather claims are advanced by persons able to gain the attention and respect of appropriate (ie, powerful) persons.

Despite the general prevalence of, and subscription to, the objectivist school of thought in the determination of cause-and-effect relationships (presentation of empirical data and analysis), the constructivist perspective is a more salient guide to an understanding of the adjustment of veterans and military-related healthcare issues. This is precisely for the reasons previously noted—veterans' expectations exceeding society's willingness to provide; unintended consequences from exposure to new technology; and the strain introduced by disorders delinquent in their appearance. Ethically, this scenario presents an unfortunate juxtaposition between societal expectations and responsibilities. A traditional and widely held belief is that when one is asked to serve the country as a member of the armed forces, all medical and healthcare needs will be accommodated. This implied social contract does not come with exceptions denoted by asterisks.

Given that military service may well extract the ultimate cost of one's life, denial of medical treatment for presented symptoms that carry the possibility of being service connected is seen as representing a denial of ethical responsibility. It might well be argued that such denial, subjectivist or not, is particularly troublesome in light of the extensive healthcare that has been provided veterans who have presented non-service-connected conditions for treatment. Clearly, veterans of all wars present readjustment needs. The manner in which these needs, medical or otherwise, are met will maximize or minimize the readjustment difficulties. Retrospectively, it appears obvious that responses to veterans needs are more positive for those armed conflicts that the public favored, most notably World War II; while conflicts that concluded in a stalemate—the Korean War—or in a perceived defeat—Vietnam—result in less favorable or supportive action.

The presentation of the same or similar symptoms by veterans of different confrontations can and has resulted in dramatically different levels of acceptance and treatment. Ethically, registered differences in public perception and treatment modalities cannot be justified, and represent an area in need of examination. As noted earlier, the issue is illustrated by the American veterans of the Vietnam War who were forced into major controversial subjectivist battles to gain answers and treatment for the troubling and serious health problems related to PTSD and exposure to Agent Orange, the defoliant herbicide. Examining relevant issues in a chronological sequence, and identifying the protagonists and antagonists, Scott developed a sociology of veterans' issues.<sup>39(Chap9)</sup> He emphasizes that "prob-



lems that lack effective advocates generally escape our attention."<sup>39(p xvii)</sup> Veterans of Vietnam have benefited from strong advocates, although the path toward recognition of PTSD as a legitimate basis for medical attention, and validation of conditions resulting from exposure to Agent Orange, was a cyclical and undulating one.

Indeed, given the controversy the war generated, the heterogeneity of those who served, and continuous changes within the political landscape, (eg, successive presidents, directors of the Department of Veterans Affairs [DVA], and budget directors), the confrontation process was not a continuous or linear evolution. It is noteworthy, and perhaps surprising, that the major opposition came from "The Iron Triangle." This is a collective composed of the Department of Veterans Affairs, Disabled American Veterans, and the House Committee on Veterans Affairs. The core of the argument again focused on a finite level of resources. Veterans of World War II and Korea dominated the patient lists of the VA during the 1960s. These were men reaching middle age and whose presentations of disease, illness, and sickness were overwhelmingly (85%) nonservice connected. Younger Vietnam veterans changed that scenario with presentations requiring treatment and rehabilitation for war-sustained injuries and diseases. This resulted in great financial and manpower stress to the system.

One of the most challenging areas was that of PTSD. The difficulties and chronology of finally getting this condition entered into the American Psychiatric Association publication *Diagnostic and Statistical Manual III* is well chronicled by Scott.<sup>39</sup> He similarly presents the decade-long struggle to earn legal culpability for conditions believed to be the result of exposure to Agent Orange.<sup>39</sup> Once that was determined, and the appeal process completed, the DVA extended the presumption of service con-

nection to Vietnam veterans presenting any number of diseases, most notably non-Hodgkin's lymphoma.

In sum, the politics of the health component for the readjustment of the Vietnam veteran transcended the legal, political, economic, and family institutions as well as that of the military. As such, the societal approach was clearly reflected, although with significant influence from the cultural, social psychological, and social approaches. Additionally, the politics of legitimating PTSD and Agent Orange as causative factors of disease represent a classic illustration of the constructivist approach, and ultimately an ethical victory. The achievement of these victories required a successful resocialization effort for a large number of diverse persons and institutions. One of the important segments of the resocialization effort was communicating the multidimensional nature of well-being.

One result of the Vietnam veterans' movements may be the emergence of a politically more sensitive and caring posture toward veterans. Although an accurate assessment of long-term results will require an extensive period of time, some preliminary evidence is available. It can be noted, for example, that there seem to be no parallel experiences described by veterans of the 1983 Grenada expedition, the 1986 Libyan strike, or the 1988 invasion of Panama, probably due to the short duration, minimal casualties, and limited combat engagements.

Unfortunately, veterans of the Persian Gulf War (1990–1991) have mirrored the Vietnam case by presenting a variety of symptoms for which the causes are not very well understood. Political sensitization and appropriate ethical considerations have been reflected, however, by virtue of the passage of a temporary disability benefit package for these veterans in conjunction with a substantial award for research and marriage and family counseling.

## CONCLUSION

Healthcare issues are increasingly complex as they reflect sociocultural and ethical considerations of a given society. The military, although representing a society, is also a specific subunit of the whole. Thus, it is necessary to understand the underlying perspectives of resocialization of healthcare personnel as well as those who are potentially in receipt of such. The multidimensional orientation toward well-being espoused by the World Health Organization can be of help.

Military healthcare, in conjunction with the healthcare of the American society, is experiencing a major transitional period. Emphasis has been

placed on the needs and interests of persons serving in the armed forces, their civilian family members, and veterans, vis-à-vis increasing sociodemographic diversity. Recent demographic changes in the composition of the AVF have resulted in consideration being given to the availability and distribution of healthcare to women who serve, and to those who are civilian spouses. Gender considerations have created a need for evaluating health risks in terms of assignment as women become eligible for more nontraditional military occupational specialties; a need for an expanded availability of different specialists; and attention to the potential of additional

stress as representatives of a minority of those serving. Satisfaction with personal healthcare, and that received by children in military families, is perhaps the most important variable in determining whether the civilian spouse will encourage reenlistment. In this regard stakeholder management is very important to achieving satisfaction.

A significant contemporary issue with healthcare implications is that of sexual preference. Although some might compare the integration of homosexuals in the military with that of African-Americans and women, a similar transition does not appear to be likely. The difficulty is exacerbated by the concern that HIV/AIDS, although it can be transmitted via heterosexual activity, has been overwhelmingly passed from one person to another through the sharing of needles in intravenous drug usage and homosexual behavior.

All who serve in the military risk life, limb, and well-being. However, some service-connected diseases and disabilities are slow to be officially recognized because of political difficulties. In particular are those conditions that might result as unanticipated consequences of technological developments for new weaponry; presentation of symptoms that might not be manifest for some time (perhaps a year or more); and the contrast between what the veteran is perceived to deserve and the inability, due to finite resources, to completely or even adequately

address that perception.

There are a number of ways to understand these complex healthcare issues. Distinguishing between disease, illness, and sickness helps clarify the issues as do a number of behavioral-science approaches. I offered two perspectives, objectivist and constructivist, to help navigate the maze. Ultimately, legitimization and treatment of veterans for conditions believed to be the result of exposure to the herbicide defoliant Agent Orange, and for those veterans suffering from posttraumatic stress disorder evolved from the constructivist approach, which functions to certify sickness through an inherently political process.

How the dramatically complicated military healthcare picture will be accommodated in the future is, of course, unknown. However, the "sociology of veterans' issues," generated by Scott, through the constructivist approach, has clearly influenced the US Congress in the direction of a more ethically sensitive reaction to veterans presenting symptoms of the Gulf War illnesses.

It is anticipated that future military healthcare efforts will be responsive to the variables noted in the sociocultural landscape throughout this chapter. Additionally, it is expected that greater attention will be directed toward the resocialization of providers and recipients, ethical issues related to care, and a multidimensional conceptualization of what constitutes well-being.

## REFERENCES

1. Lerner M. Conceptualization of health and social well-being. *Health Serv Res.* 1973;8(1):6-12.
2. Lerner M. Conference on social sciences in health at APHA. *Health Serv Res.* 1974;9(4):340-347.
3. Moskos CC. Institutional and occupational trends in armed forces. In: Moskos CC, Wood FR, eds. *The Military: More Than A Job?* Great Britain: Pergamon-Brassey's International Defense Publishers Inc; 1988: Chap 2.
4. Segal DR. *Recruiting for Uncle Sam: Citizenship and Military Manpower Policy.* Lawrence: University of Kansas Press; 1989.
5. Coser LA. *Greedy Institutions: Patterns of Undivided Commitment.* New York: Free Press; 1974.
6. Llewellyn C. Education and training for war surgery. *Mil Med.* 1990;155(4):192-193.
7. Smith AM. Military medicine: Not the same as practicing medicine in the military. *Armed Forces Soc.* 1992;18(4):576-591.
8. Stanley J. Introduction: An invitation to revisit Lasswell's garrison state. In: Stanley J, ed. *Essays on the Garrison State.* New Brunswick, NJ: Transaction Publishers; 1997: 22-25.
9. Stanley J, Blair JD. Introduction: Challenges in military health care. In: Stanley J, Blair JD, eds. *Challenges in Military Health Care: Perspectives on Health Status and the Provision of Care.* New Brunswick, NJ: Transaction Publishers; 1993.

10. Scott WJ. PTSD and Agent Orange: Implications for a sociology of veterans' issues. *Armed Forces Soc.* 1992;18(4):592–612.
11. VA Fact Sheet, Department of Veterans Affairs (Online). March, 1997.
12. Brown D. \$3 million study of Gulf war illnesses criticized: Pentagon bypassed competitive procedures in picking researcher who sees several syndromes. *New York Times*. 8 November 1997:A-11.
13. Redhead CS, Rastogi A. Gulf war veterans' illnesses: Federal research and legislative mandates. *CRS Report for Congress*. 5 January 1998:1.
14. Hoiberg A, White JF. Health status of women in the armed forces. In: Stanley J, Blair JD, eds. *Challenges in Military Health Care: Perspectives on Health Status and the Provision of Care*. New Brunswick, NJ: Transaction Publishers; 1993: 73–92.
15. Treadwell ME. *US Army in World War II: Special Studies—The Women's Army Corps*. Washington, DC: Office of the Chief of Military History, Department of the Army; 1954, as cited in Hoiberg A, White JF. Health status of women in the armed forces. In: Stanley J, Blair JD, eds. *Challenges in Military Health Care: Perspectives on Health Status and the Provision of Care*. New Brunswick, NJ: Transaction Publishers; 1993.
16. Women's Research and Education Institute (WREI). *Women in the Military: Where They Stand*. 2nd ed. Washington, DC: WREI; 1998.
17. Stanley SC. *Women in the Military*. New York: Jullian Messner; 1993.
18. Bryant CD. Olive-drab drunks and GI junkies: Alcohol and narcotic addiction in the US military. In: Bryant CD, ed. *Deviant Behavior, Occupational and Organizational Bases*. Chicago, Ill: Rand McNally; 1974.
19. Bray RM, Kroutil LA, Marsden ME. Trends in alcohol, illicit drug, and cigarette use among US military personnel: 1980–1992. *Armed Forces Soc.* 1995;21(2):271–293.
20. Kanter R. *Men and Women of the Corporation*. New York: Basic Books; 1977.
21. Stanley J, Blair JD. Emerging perspectives on military health care. In: Stanley J, Blair JD, eds. *Challenges in Military Health Care*. New Brunswick, NJ: Transaction Publishers; 1993: Chap 9.
22. Catton B. *The American Heritage Picture History of the Civil War*. New York: Random House; 1988: 371.
23. Burrelli David F. Congressional Research Service, The Library of Congress. Personal Communication, 28 September 1998.
24. Blair JD, Stanley J, Whitehead CJ. A stakeholder management perspective on military health care. *Armed Forces Soc.* 1992;18(4):551.
25. Best RA Jr. Military medical care services: Questions and answers. *CRS Issues Brief*. 5 August 1998:1–6.
26. Burrelli DF. Military medical care and Medicare subvention funding. *CRS Report for Congress*. Washington, DC: Congressional Research Service, Library of Congress; 17 March 1997:1–4.
27. Burrelli DF. Military health care/CHAMPUS management initiative. *CRS Report for Congress 91-420F*. Washington, DC: Congressional Research Service, Library of Congress; May 1991:2.
28. Orthner DK. Family contributions to work commitment. *J Marriage Fam.* 1986;48:578–581.
29. Stanley J, Segal MW, Laughton CJ. Grass roots family action and military policy responses. [Marriage and Family Review special issue]. *Corporations, Business and Families*. 15(3-4):207–223.

30. Scott WJ, Stanley SC. Conclusion: Directions for the future. *Guys and Lesbians in the Military*. New York: Aldine de Gruyter; 1994.
31. Burrelli DF. HIV-1 / AIDS and US military manpower policy. *Armed Forces Soc.* 1992;18(4):453.
32. Cooper EC. Treatment of HIV disease: Problems, progress, and potential. In: Mann J, Tarantola D, eds. *AIDS in the World II*. New York: Oxford University Press; 1996.
33. *New York Times*. 25 September 1998:1.
34. Associated Press. Military judge convicts soldiers of two AIDS related offenses. *Washington Post*. 28 July 1998:A13.
35. Scicchitano JP. Worst by far AIDS case ends in assault verdict. *Army Times*. 12 December 1988:23.
36. Associated Press. Ex-fiancee charges sailor failed to tell her about HIV. *Washington Times*. 10 May 1988.
37. Lewis A. Health as a social concept. *Br J Sociol.* 1953;4:109–124.
38. Mechanic D. *Medical Sociology*. 2nd ed. New York: Free Press; 1978: 54–92.
39. Scott WJ. *The Politics of Readjustment: Vietnam Veterans Since the War*. New York: Aldine de Gruyter; 1993.



# Chapter 23

## MILITARY MEDICINE IN WAR: THE GENEVA CONVENTIONS TODAY

LEWIS C. VOLLMAR, JR, MD, MA (LAW)\*

---

### INTRODUCTION

### THE EVOLUTION OF THE GENEVA CONVENTIONS

### MEDICAL PERSONNEL AND THEIR PATIENTS

Definition of Wounded and Sick

Definition of Medical Personnel

Rights of Medical Personnel

Retention of Medical Personnel

### MEDICAL UNITS, MEDICAL TRANSPORTS, AND THEIR IDENTIFICATION

The Distinctive Emblem

Medical Transports

Medical Units

### MEDICAL ETHICS: PROVIDING A GUIDELINE FOR MEDICAL CARE IN WAR

### RESPONSIBILITIES OF MEDICAL PERSONNEL

In Combat Theaters

In Occupied Territories

Refraining From Prohibited Acts

### CONCLUSION

### ATTACHMENTS: INTERNATIONAL GUIDANCE ON HUMANITARIAN CARE

\*Colonel (Retired), Medical Corps, United States Army Reserve; formerly, Commander, 21st General Hospital, St. Louis, Missouri; currently, Dermatology Section Chief, St. Anthony's Hospital, 10004 Kennerly Road, Suite 300, St. Louis, Missouri 63128-2175



Joseph Hirsch

*Even the Enemy Gets Medical Attention*

circa 1943

Although a Marine guard is stationed at the door, this Japanese prisoner with malaria is accorded the same civil, careful treatment given our own sick men. Area Naval Hospital, Pearl Harbor. Gift of Abbott Laboratories.

Art: Courtesy of Navy Art Collection, Department of the Navy, Naval Historical Center, Washington Navy Yard, Washington DC. Available at: <http://www.history.navy.mil/mil/ac/medica/88159fs.jpg>.

## INTRODUCTION

The purpose of international humanitarian law is to regulate warfare in order to attenuate hardship. The branch of that law referred to as the law of Geneva is concerned with the victims of war, military personnel placed *hors de combat*, and persons not taking part in the hostilities.<sup>1</sup> As codified within the Geneva Conventions, extensive protections are granted especially to the wounded and sick, to reduce their suffering and

speed their recovery. To achieve this effect, the conventions mandate that the wounded and sick be cared for by medical personnel. To carry out this mandate, medical personnel and their equipment are granted extensive protections that are denied other personnel and other equipment. The humanitarian law affording these protections has evolved gradually over time, and is still evolving today.

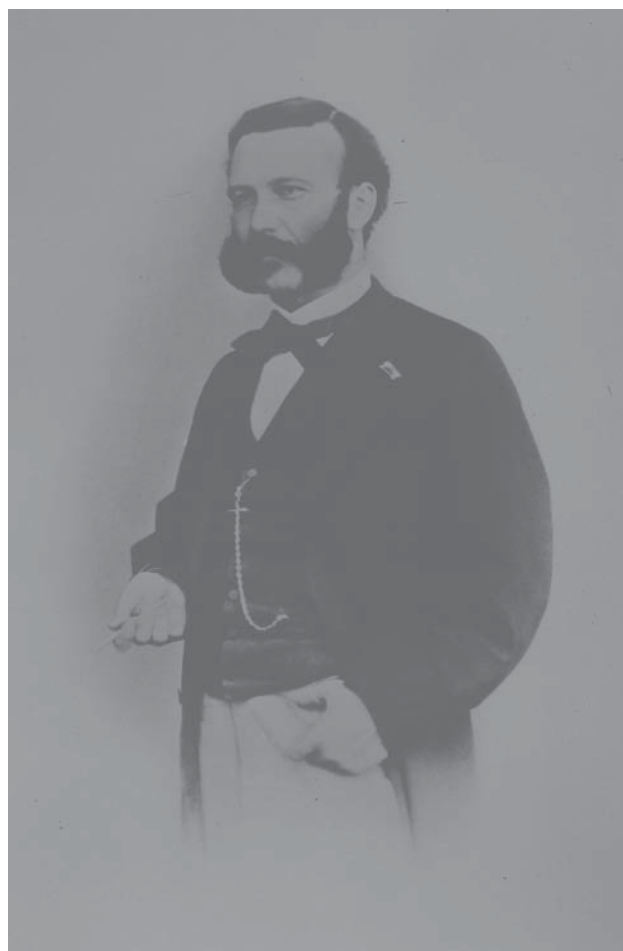
## THE EVOLUTION OF THE GENEVA CONVENTIONS

Essentially every civilization has placed some limitations on its conduct of warfare. From the study of ancient civilizations and their rules of warfare it becomes evident that certain common themes were present: (a) certain weapons were outlawed, (b) wanton destruction was to be avoided, and (c) prisoners and noncombatants were to be spared. Although these limitations on the conduct of warfare were sometimes violated, they were followed for the most part. And because these limitations were similar from culture to culture and relatively consistent over recorded history, they were the custom and gradually evolved into a set of customary laws of war.<sup>2-7</sup>

It was not until the 17th century and the wars of Louis XIV that medical services were regularly accompanying troops in the field. It was at this same time that arrangements were first being made between opposing commanders for the reciprocal care of the wounded and sick and for the protection of hospitals and medical staff. These arrangements were strictly ad hoc, for they were not proposed before a conflict began and they were without status once the conflict ended.<sup>8</sup>

During the late 18th and early 19th centuries customary rules began to be codified into binding, multilateral, international agreements, referred to as "conventions."<sup>2</sup> On a number of occasions the need was expressed for a convention to address the specific problem of how to treat the wounded and sick.<sup>8</sup> This idea was given particular emphasis by Henry Dunant (Figure 23-1), who had been present at the Battle of Solferino during the Franco-Austrian War of 1859. The suffering and lack of care of the wounded and sick prompted him to write *Un Souvenir de Solferino*, which was published in 1862.<sup>9</sup> In his book he urged that two events occur. The first of these was the establishment of voluntary "relief societies for the purpose of having care given to the wounded in wartime."<sup>9(p115)</sup> To this end, Dunant and four other Swiss citizens (the "Committee of Five")

formed the International Standing Commission for Aid to Wounded Soldiers, which later changed its name to the International Committee of the Red



**Fig. 23-1.** Henry Dunant. For his efforts in establishing the Red Cross movement and developing the Geneva Convention of 1864, Henry Dunant was awarded the first Nobel Peace Prize in 1901. Reproduced with permission from the International Committee of the Red Cross.

Cross (ICRC), and set about the task of encouraging the establishment of National Red Cross Societies throughout the world.

The second was the formulation of an “international principle, sanctioned by a Convention inviolate in character,”<sup>9(p126)</sup> that would serve as a basis and support for the relief societies. In 1863 Dunant and his committee organized a conference in Geneva to which several European nations sent their representatives. The conference recommended that national relief societies be set up, and asked the governments to give them their protection and support.<sup>10</sup> Additionally, the conference recommended that wartime belligerents extend similar protections to field hospitals, medical personnel, and the wounded. In response to these recommendations, the Swiss government convened a diplomatic conference in Geneva in 1864. This conference drew up the Convention for the Amelioration of the Condition of the Wounded in Armies in the Field, the first Geneva Convention,<sup>11</sup> which was signed by

12 European nations (Figure 23-2) and adopted by almost all the nations in the years that followed (the United States ratified the convention in 1882). Although it contained only 10 short articles, this convention expressed all of the important provisions necessary for the care of the wounded and sick and for the protection of the medical services. It was largely reflective of the customary practices of the time, yet it was the first document to place these customs into conventional form.<sup>12-14</sup>

During the next century the Geneva Convention underwent several revisions (in 1906, 1929, 1949, and 1977). These revisions were designed to align the conventions with modern technologies, customs, and methods of warfare. The use of mobile medical units led to the development of articles in the conventions distinguishing them from fixed medical facilities. The invention of the airplane and helicopter led to entire sections dealing with their use as medical transports. And the increasing involvement of civilians as victims of war led to an



**Fig. 23-2.** Signing of Geneva Convention. Painting by Armand-Dumaresq depicting the signing of the Geneva Convention on 22 August 1864. The original document was signed by 12 European nations: the Swiss Confederation, Baden, Belgium, Denmark, Spain, France, Hesse, Italy, the Netherlands, Portugal, Prussia, and Württemberg. Reproduced with permission from the International Committee of the Red Cross.



entire convention dealing with their protection. Also, the conventions were revised in response to war crimes in an attempt to increase the observance of their provisions. The illegal, commercial use of the Red Cross emblem led to provisions banning all unauthorized uses. The sinking of hospital ships by submarines and bombers led to provisions to better protect them. And the heinous Nazi experimentation on human subjects led to provisions strictly prohibiting such activity and punishing the violators.<sup>2,14-23</sup> But, perhaps the most remarkable change in the Geneva Conventions has been in their length, starting with 10 short articles in 1864 and expanding to over 600 articles in the four 1949 Geneva Conventions and the two 1977 Additional Protocols. Yet, throughout all of these changes, the basic humanitarian principle, which guided the writing of the very first of the Geneva Conventions, has never changed. The only purpose of the Geneva Conventions is to protect the victims of war, especially the wounded and sick. It must be borne in mind by medical personnel that the sole intent of their own protections and privileges is specifically and only for the benefit of the wounded and sick, to reduce their suffering and to speed their recovery.

The conventions currently in effect are the Geneva Conventions drafted in 1949 (Geneva 1949), which deal with the wounded and sick on land (Geneva I),<sup>24</sup> the wounded, sick, and shipwrecked at sea (Geneva II),<sup>25</sup> prisoners of war (Geneva III),<sup>26</sup> and civilian populations (Geneva IV).<sup>27</sup> These four conventions are the ones that are currently observed by the United States and that enumerate the duties and rights of medical personnel and the protection

of medical units and transports.<sup>28-30</sup> The four Geneva Conventions of 1949 have been adopted by essentially every nation (with a few minor exceptions).<sup>31</sup> In 1977 two protocols were added to the Geneva Conventions, Protocol I dealing with international armed conflict<sup>32</sup> and Protocol II dealing with noninternational armed conflict.<sup>33</sup> The protocols have been accepted by the majority of the world's nations;<sup>30</sup> however, the United States has ratified neither. Protocol II has been submitted to the Senate for ratification, but Protocol I has not, due to serious concerns about some of its provisions.<sup>34-40</sup> Protocol I is being reexamined by the United States for possible ratification with reservations.<sup>41</sup> But, the sections dealing with the provision of care to the wounded and sick and the duties and rights of medical personnel, medical units, and medical transports are generally noncontroversial in nature in that they merely attempt to clarify and expand on the already widely accepted provisions of the Geneva Conventions of 1949.

In the following discussion of those duties and rights of which military medical personnel should be aware, language from the protocols may be used for the sake of clarity. Where significant differences are found to exist between the protocols and Geneva 1949, these differences will be pointed out. It also should be pointed out that the obligations imposed by the Geneva Conventions are almost exclusively those that belligerents are called upon to assume for the benefit of enemy nationals; only rarely do the conventions mandate that belligerents are to take specific measures on behalf of their own wounded and sick.

## MEDICAL PERSONNEL AND THEIR PATIENTS

All military medical personnel must remember that the Geneva Conventions were written to alleviate the suffering of the victims of war, especially the wounded and sick, and any rights and privileges granted to military medical personnel by the Geneva Conventions are specifically for the benefit of those wounded and sick. However, not every soldier, sailor, and citizen is included under the protective umbrella of "wounded and sick," nor is every healthcare provider necessarily one of the "medical personnel." Furthermore, the rights and privileges of medical personnel are detailed and specific.

### Definition of Wounded and Sick

The primary duty of medical personnel is to care for the wounded and sick. But who constitutes the

"wounded and sick" is a question with an evolving answer. Since the beginning, the Geneva Conventions have granted special protections to members of the armed forces who were *hors de combat* because of injury or illness. Geneva 1864 used the term "soldiers" when referring to whom care must be given.<sup>11</sup> The Geneva Convention of 1906 and The Hague Convention of 1907 expanded the category to "officers," "soldiers," "sailors," and "other persons officially attached" to the army or navy.<sup>42,43</sup> Wounded and sick civilians were not included. At the time this was probably adequate because civilians were generally regarded as outside the struggle and the vast majority of all casualties of war were combatants. Since the early part of the 20th century an expansion has occurred in the use of irregular warfare. During World War II the Axis Powers refused to regard irregular troops, or "partisans," as being

regular combatants entitled to protection under the Geneva Conventions. Therefore, primarily to define who was entitled to prisoner of war status, Geneva 1949 expanded the category of protected persons (and, hence, entitled to medical care) to include irregular combatants.<sup>24,26</sup> World War II also clearly demonstrated that civilians were no longer outside the struggle. Therefore, Geneva IV was drafted, extending protections to civilians. In it civilian wounded and sick are made the object of protection and respect, but they are not granted the same access to medical care as wounded and sick soldiers.<sup>27</sup> Following World War II, the increasing concern over civilian victims of war, and the further blurring of the distinction between civilians and combatants created by the proliferation of guerrilla warfare, led to a further expansion of the definition of “wounded and sick” in the 1977 Protocols to encompass all persons wounded and sick, civilians and soldiers alike.<sup>32</sup>

The definition Protocol I uses for “wounded and sick” is “persons, whether military or civilian, who, because of trauma, disease or other physical or mental disorder or disability, are in need of medical assistance or care and who refrain from any act of hostility.”<sup>32</sup> Therefore, the term includes not just the wounded and sick in the usual sense, but also expectant mothers, maternity cases, newborn babies, and invalids—those whose condition may at any moment necessitate immediate medical care or who are in such a state of weakness that special medical consideration is demanded. But not included in the term are those who are not refraining from acts of hostility. A person with a broken leg who continues to fire his rifle is not considered wounded or sick by this definition, and to him no duty of care is owed by medical personnel until he surrenders. Indeed, medical personnel have every right to even inflict harm upon him if it is necessary to defend themselves or their patients.

The United States has not yet ratified the protocols; therefore, the behavior of medical personnel of the United States armed forces is governed by only Geneva 1949. If one interprets its provisions strictly, medical personnel are obligated to treat only the wounded and sick of the armed forces, those accompanying the armed forces, and those in resistance movements, but not civilians.<sup>24,25</sup> However, it is instructive to review what Jean Pictet has to say regarding the care of civilians in his widely respected commentary on the 1949 Geneva Conventions:

In virtue of a humanitarian principle, universally recognized in international law, of which the Geneva

Conventions are merely the practical expression, any wounded or sick person whatever, even a *franc-tireur* [terrorist] or a criminal, is entitled to respect and humane treatment and the care which his condition requires. Even civilians, when they are wounded or sick, have the benefit of humanitarian safeguards (as embodied in Part II of the Fourth Geneva Convention of 1949) very similar to those which the First Convention prescribes in the case of members of the armed forces; and the applicability of these safeguards is quite general....Article 13 cannot therefore in any way entitle a belligerent to refrain from respecting a wounded person, or to deny him the requisite treatment, even where he does not belong to one of the categories specified in the Article. Any wounded person, whoever he may be, must be treated by the enemy in accordance with the Geneva Convention.<sup>44(pp145–146)</sup>

Both Pictet and Protocol I apply a more liberal standard when defining who is entitled to care in the military medical care system. This is especially true of Protocol I, which seems to imply that military medical facilities should open their doors to everyone seeking care. It is easy to envision how quickly they would be overwhelmed in such a situation, especially if the level of care offered by the military medical establishment is much higher than that of the peacetime civilian community. Therefore, if the United States does eventually submit Protocol I to the Senate for ratification, it will be with the understanding that military hospitals are intended for the treatment of military wounded and sick; treatment for civilian wounded and sick will be required only when the United States is occupying foreign territory and the civilian healthcare community is unable to care for its own. However, if a civilian does enter the military medical care system, under whatever circumstance, he will then be treated no differently than anyone else.<sup>41</sup>

### Definition of Medical Personnel

Protocol I defines medical personnel as “those persons assigned, by a Party to the conflict, exclusively to the medical purposes enumerated....or to the administration of medical units or to the operation or administration of medical transports.” The medical purposes enumerated include “the search for, collection, transportation, diagnosis or treatment—including first-aid treatment—of the wounded, sick and shipwrecked, or for the prevention of disease.”<sup>32</sup> Thus, the term “medical personnel” is not to be interpreted narrowly. It encompasses all personnel who are required to ensure the adequate treatment

of the wounded and sick. Obviously included are those who give direct care, such as doctors, nurses, orderlies, and stretcher bearers. Also included are those who are not direct caregivers, but who are necessary for the provision of medical care, such as office staff, pharmacists, cooks, ambulance drivers, pilots and crews of medical transports, and maintenance personnel attached to medical units. Together all of these personnel form the medical service of the armed forces and all are afforded special protections.

In order for these medical personnel to receive special protections they must be “exclusively” assigned to and engaged in medical activities. Protected medical personnel may not be involved in other activities as long as they are assigned to perform medical tasks. For instance, they may not abuse their special protections by engaging in commercial activities, and they certainly may not engage in military operations that are not of an humanitarian nature. This does not mean that medical personnel are prohibited from ever becoming fighting combatants—there are examples of this throughout history (eg, Che Guevara and General Leonard Wood). However, in doing so they lose their special protections under the Geneva Conventions.

The protocol also stipulates that medical personnel must be “assigned by a Party to the conflict.” A military doctor under military orders while performing his medical mission would certainly fulfill this criterion. Additionally, personnel of voluntary aid and national Red Cross societies that have been authorized by the government to render aid would also meet this requirement. However, not included would be the individual physician working on his own. Medical personnel must perform their duties in the framework of some organization that is under the control of the government. During the drafting of the protocols, a proposal was made to provide for the protection of the individual, independent physician wearing a special emblem, the Staff of Aesculapius. However, the proposal was not successful.<sup>45</sup>

Finally, in order to be protected, medical personnel must comply with the provisions of the Geneva Conventions, whether or not those provisions are part of their national legislation or military regulations and whether or not the enemy is following the requirements of the Geneva Conventions. Disobeying the provisions is a breach of law and subjects the individual to punishment. Therefore, it behooves medical personnel to be familiar with the duties demanded of them, as well as the rights granted to them under international humanitarian law.

## **Rights of Medical Personnel**

In order to assist medical personnel in carrying out their duty to care for the wounded and sick, they are granted certain rights and privileges under the Geneva Conventions. Medical personnel are not allowed under any circumstances to renounce these rights.<sup>24-26</sup> This prohibition is intended to prevent pressure being applied to medical personnel forcing them to renounce their rights and ultimately adversely affecting their care of the wounded and sick.

The primary right of medical personnel is that they must be respected and protected under all circumstances.<sup>24,25,27,32,33</sup> This is the classic formula (discussed below in the section entitled *Caring for the Wounded and Sick*). Department of the Army Field Manual 27-10 discusses this right in the following way:

[Medical personnel] must not knowingly be attacked, fired upon, or unnecessarily prevented from discharging their proper functions. The accidental killing or wounding of such personnel, due to their presence among or in proximity to combatant elements actually engaged, by fire directed at the latter, gives no just cause for complaint.<sup>28(p89)</sup>

Medical personnel can be killed accidentally because they are assigned to units that are legitimate military targets, or assigned to medical units that are near legitimate military targets. Their right to respect and protection does not shield them from unintentional harm in these circumstances.

Not only have medical personnel the duty to care for the wounded and sick, they have the right to do so, also. Likewise, not only do they have the duty to render that care according to the dictates of medical ethics, they have the right to do so (see the section titled *Medical Ethics*). These rights are directly associated with the duty all belligerents have to provide medical care to enemy wounded and sick, and to allow medical personnel to provide that care according to the dictates of medical ethics.

The protocols allow medical personnel to withhold information regarding the wounded and sick under their care if that information would prove to be harmful to their patients or their patients' families.<sup>32,33</sup> This provision is not concerned with medical confidentiality, that is, the duty that medical personnel have not to discuss with third parties the state of health or treatment of their patients. Rather, this provision deals with the denouncing of, or informing on, wounded members of enemy forces or resistance movements. It is most likely to concern civilian doctors treating patients in occupied terri-



tories. It arose out of the experience of World War II when occupying forces ordered the inhabitants of occupied territories to reveal the presence of any presumed enemy or face severe punishment. Those drafting the protocols felt that, without a provision of this sort, wounded and sick enemy soldiers in hiding would not seek out medical care.<sup>46</sup> Whether or not to denounce a patient is left up to the conscience of the medical person involved. He cannot be compelled to denounce his patients, although he is under no obligation not to do so. However, there are two exceptions to this rule: (1) a belligerent may compel its own nationals to give information on their patients, whether they are friend or enemy, and (2) "enemy" medical personnel may be required to notify authorities regarding the presence of any communicable diseases for obvious reasons of public health.

### **Retention of Medical Personnel**

Medical personnel who fall into enemy hands are treated differently from other military personnel. Geneva 1864 and Geneva 1906 both provided that medical personnel were not to be treated as prisoners of war, but were to be sent back to their own side as soon they were no longer indispensable for the care of the wounded currently under their care. But in World War I this provision was applied differently than intended, in that medical personnel were generally retained to care for prisoners of war. Geneva 1929 reiterated the principle that medical personnel were to be repatriated, but added the qualifying statement "unless there is an agreement to the contrary." Unfortunately Geneva 1929 did not sufficiently specify how medical personnel were to be treated in the event of retention. Consequently, in World War II repatriation of medical personnel was a relatively rare event, and retained medical personnel were often used in nonmedical work and otherwise considered prisoners of war. During the debate leading to the development of the 1949 Geneva Conventions two separate opinions were expressed concerning the status of medical personnel. One side favored a prisoner-of-war status for medical personnel, although, while in captivity, they would care for the wounded and sick prisoners of war. The other side favored a non-prisoner-of-war status, thereby giving medical personnel additional liberty and prestige, which would help them in providing care to the wounded and sick. The 1949 Geneva Conventions adopted the latter

position, wherein captured medical personnel are not prisoners of war, yet are retained.<sup>44</sup>

Medical personnel may be retained, but "only in so far as the state of health....and the number of prisoners of war require [it]." The retention of medical personnel must be justified by a significant, immediate need. The number of retained medical personnel is to be determined by the number of prisoners of war, and the ratio between the two may be decided by special agreement between belligerents.<sup>24</sup> As it always has been throughout the development of the Geneva Conventions, retention of medical personnel remains subordinate to their repatriation. But, if history is any indication of the future, it is likely that retention will become the rule and repatriation will remain the exception.

Although retained medical personnel are not considered prisoners of war, at the very least they are to receive all the benefits and privileges of prisoner-of-war status. While in a retained status, medical personnel must be allowed to continue, without hindrance, their work of caring for the wounded and sick prisoners of war, preferably of their own nationality. They must be supplied with the necessary facilities and supplies to do their work. They cannot be required to do any work outside their medical duties, such as administration and upkeep of the camp to which they are assigned, even if they have nothing better to do. However, it must be realized that the term "medical duties" must be interpreted broadly to include such work as administration and upkeep of a hospital or clinic in which the medical personnel are working. Retained medical personnel must be allowed to visit periodically the prisoners of war in labor units or hospitals outside the camp, and they must be supplied with the necessary transportation to do so. Obviously, as with prisoners of war, medical personnel cannot have complete freedom of movement, and they remain subject to the rules and regulations of their captor. Professionally, they remain subject to their captor's administrative control. Yet, their captor's authority ends where questions of medical ethics begin. Thus, a physician cannot be prevented from treating a sick person, or be forced to apply a treatment detrimental to a person's health. There may be some give and take in this regard, because what is considered acceptable medical treatment may vary among nations and among physicians. The fundamental rule laid down by the Geneva Conventions is that the captor must care for the enemy wounded and sick as well as he does his own.<sup>24,26</sup>



## MEDICAL UNITS, MEDICAL TRANSPORTS, AND THEIR IDENTIFICATION

It is impossible to protect the wounded and sick without also protecting the medical transports and medical units that move and house them. Therefore, the Geneva Conventions have provided for their protection as well. As with protections afforded medical personnel, the protections extended to medical transports and medical units are specifically for the benefit of the wounded and sick.

### **The Distinctive Emblem**

In order to protect medical personnel, medical transports, hospitals, and patients, some means of quick and sure identification is necessary. This need led to the adoption of the red cross (and the red crescent) as the distinctive emblem of the medical service.

### *Historical Development*

Before 1864 each State had its own distinctive flag for marking its hospitals and ambulances on the battlefield. Henry Dunant and his Committee of Five recognized the need for a single emblem by which all of the medical services would be recognized. As a compliment to Switzerland, the red cross on a white background (the opposite of the Swiss flag) was proposed and adopted at the first Geneva Convention. The hope that this would become a universal symbol lasted only until 1876 when Turkey, which had accepted Geneva 1864 without reservation, announced that its medical service would use the red crescent and not the red cross as its distinctive emblem, because the red cross, resembling the Christian cross, was offensive to Moslem soldiers. When the Geneva Convention was revised in 1906, the adoption of the red cross emblem was confirmed without exceptions, yet Turkey added a reservation that it would use the red crescent instead of the red cross. Finally, in 1929 during the second revision of the Geneva Convention, the use of the red crescent (by Turkey and Egypt) and the use of the red lion and sun (by Persia) were given official recognition.<sup>47</sup>

During the debates leading to the adoption of the 1949 Conventions, the Israeli delegation proposed that the Red Shield of David (a red, six-pointed star on a white background) should be recognized. The conference considering this proposal narrowly rejected this new emblem in a desire to limit the num-

ber of exceptions to the use of the red cross. It realized that recognizing this emblem would open the floodgates to a great many additional emblems, including the flame, shrine, bow, palm, wheel, trident, cedar, and mosque, all of which had already been submitted by various nations to the ICRC for international recognition. Israel accepted the 1949 Geneva Conventions, but with a reservation that it would continue to use the Red Shield of David as its distinctive emblem.<sup>44</sup>

The desire for a single, universal symbol remains strong. Proposals have been made to introduce a new symbol that would be acceptable to all. However, the red cross is probably the most widely recognized symbol of any sort throughout the world, and building that kind of recognition for any other symbol would be difficult. Therefore, the red cross remains the distinctive emblem of the medical service, with the two exceptions of the red crescent and the red lion and sun (Figure 23-3). Several Moslem states are currently using the red crescent, but the red lion and sun has fallen into disuse. Military personnel should also expect to see the use of the Red Shield of David denoting the medical service of the Israeli military (Figure 23-4). And, although the Red Shield of David is not one of the emblems specifically mentioned in the Geneva Conventions, medical personnel and medical equipment displaying it should be accorded the same protections and privileges as medical personnel and medical equipment displaying the red cross or the red crescent.

### *Protective vs Indicative Sign*

There are two fundamentally different uses of the red cross (or red crescent) emblem that are authorized by the Geneva Conventions.<sup>24,25</sup> The first and most important is as the distinctive emblem of the medical service. As such it is used to mark facilities, equipment, supplies, means of transport, and personnel to show that they are part of the medical service and protected by the Geneva Conventions. Used as a protective sign, the red cross emblem should be large relative to the person or object it protects so that it can be easily seen. Belligerents have a clear interest in seeing that their protected personnel and objects are easily recognizable by the enemy, and they must "endeavor" to ensure that recognition takes place.<sup>32</sup> However, there is no obligation on the part of the belligerent to ensure rec-



**Fig. 23-3.** Medical service emblems. The distinctive emblems of the medical service recognized by the Geneva Conventions: the red cross, red crescent, and red lion and sun, each appearing on a white background.

ognition; it is not a violation of the conventions if medical personnel, units, or transports are not marked with the distinctive emblem, it is merely risky. A field commander may wish to camouflage his medical units in front line positions in order to conceal the strength and position of his forces. But a medical unit can be respected by an enemy only if he knows of its presence. Once the enemy does recognize medical personnel, units, or transports for what they are, he must respect them regardless of whether or not they are properly marked.

The distinctive emblem provides good visual identification of medical activities. Today, primarily in the case of medical personnel, the red cross still provides good identification and is likely to be protective. For personnel, the conventions allow the red cross is to be worn as an armlet or brassard on the left arm. Also, medical personnel are entitled to carry a special identification card bearing the red cross.<sup>24</sup> Neither of these means of identification may be confiscated by the enemy, and medical personnel are entitled to wear the armlet and carry the identification card even when retained. In the case of medical units and transports, the red cross emblem may not be as effective as it needs to be. At one time purely visual recognition of a medical unit



**Fig. 23-4.** The Red Shield of David. Although this emblem is not officially recognized by the Geneva Conventions, it is nonetheless one that service members may encounter.

or transport was enough to prevent attack, but modern, long-range combat has rendered purely visual means of identification inadequate. Therefore, Protocol I has introduced a technical means of long-range distinctive signals using light, radio, and radar signals. Belligerents are not required to use these special signals, but are encouraged to do so. In general, a transport or unit may not use a special signal without also displaying the red cross.<sup>32</sup>

The second use of the red cross emblem is as a purely indicative sign to show that the person or object marked with it is connected with the National Red Cross (or Red Crescent) Society without implying protection under the Geneva Conventions. In general, as an indicative sign the red cross should be relatively small compared to the person or object so as not to be confused with the red cross used as a protective sign. Although originally conceived as providing support to the military medical service during wartime, the Red Cross has taken on new roles. During peacetime, the Red Cross provides blood collection and distribution, disaster relief, and other welfare activities. During wartime, the Red Cross may provide such nonmedical services as sending parcels to personnel at the front, organizing recreation for the troops, and helping the families of soldiers. All of these activities, which certainly do much to enhance the respect for the red cross emblem in general, are done under the indicative sign. Only if the Red Cross actually provides wartime medical support to the military medical service and is under its control (in effect, part of the military medical service) is it entitled to use the red cross emblem as a protective sign. In this case

the Red Cross personnel, units, and transports would probably wish to use the larger, more easily recognizable, protective red cross emblem rather than the smaller emblem that is allowed when the red cross is used strictly as an indicatory sign.

### *Abuses of the Distinctive Emblem*

Abuses of the red cross emblem are as old as the emblem itself. As with uses of the red cross, a distinction needs to be made between abuses of the protective sign and abuses of the indicatory sign. In time of war the first is by far the more serious. This type of abuse may be relatively minor, such as the wearing of the red cross by an independent physician who is not a member of the medical service, or major, such as the deliberate marking of an ammunition dump with the red cross to deceive the enemy. The tragedy of misusing the red cross in this manner is that it causes the enemy to suspect all uses of the red cross to the detriment of the wounded and sick that it is designed to protect. Fortunately, abuses of this type are relatively uncommon.

More common, although of a less serious nature, have been abuses of the red cross as an indicatory sign. Soon after international acceptance of the Geneva Conventions, the red cross was in widespread commercial use, being used by chemists, manufacturers, and even barbers. In 1906 the Geneva Convention was modified to prevent abuses in general.<sup>42</sup> Geneva 1929 specifically mentioned commercial abuses, although it left the specific prohibition to national legislation.<sup>47</sup> Finally, Geneva 1949 prohibited all misuses of the red cross emblem or imitations thereof, and it required all nations to take the necessary measures to prevent and repress these abuses.<sup>24</sup>

### **Medical Transports**

Medical transports include all means of conveyance, whether by land, sea, or air, that are used for the purpose of transporting wounded, sick, shipwrecked, medical personnel, or medical material. The assignment of a means of transportation to medical transport may be permanent or temporary in nature (except for hospital ships), yet this assignment must be exclusive; a means of transportation may not be used for purposes other than medical transportation for as long as it is assigned to do so. The immunity of medical transports is the same as for medical units and medical personnel. They must be "respected" and "protected." As with medical units, medical transports may not be used for acts

that are considered harmful to the enemy and outside their normal humanitarian uses. A medical convoy carrying both wounded and able-bodied soldiers or arms, for example, would lose its protections to the detriment of the wounded. However, the presence of arms that have just been taken from the wounded and not yet turned over to the proper authorities would be permitted. Also, the fact that the medical personnel on board the transport are armed with small arms, or that the transport may be carrying wounded and sick civilians, will not deprive the transport of its protections.

The disposal of a medical transport if it should be captured by the enemy depends upon the nature of the transport. Vehicles that are used on roads, rails, or inland waterways are subject to the laws of war. They become the property of the captor and may be used for any purpose desired, even a military, nonmedical purpose (assuming, of course, that the protective emblem has been removed). Before the captor may convert a medical vehicle, he must ensure the care of the wounded and sick that are being carried by the vehicle. The captured wounded and sick become prisoners of war and the captured medical personnel are retained.<sup>24,25,32</sup>

### *Medical Aircraft*

Medical aircraft flying over enemy territory or close to enemy lines can be given a summons to land by the enemy to undergo an inspection. The purpose of the inspection is to verify that the aircraft is being used in compliance with the Geneva Conventions. The pilot must obey this summons, for refusing to do so puts the aircraft at risk and allows the enemy to legally open fire on it. The examination of the aircraft must be conducted expeditiously so that any wounded and sick on board will not suffer needlessly, and, if no violations are found, the aircraft must be allowed to continue on its way with its crew, passengers, and material. If the examination reveals that the aircraft is involved in acts harmful to the enemy, such as carrying munitions or being used for military observation, then the aircraft can be seized, the wounded and sick made prisoners of war, and the medical personnel retained. Because of weather conditions, engine trouble, or other causes, medical aircraft can also be forced to land in enemy territory without receiving a summons. In the event of capture under these circumstances, the aircraft can also be seized. According to Geneva 1949, any seized medical aircraft becomes war booty.<sup>24,25</sup> Protocol I changes this provision such that any aircraft seized that had been assigned as a permanent medical transport may be

used only as a medical transport by the captor.<sup>32</sup>

Medical aircraft also have certain operational limits placed upon them. These regulations have undergone a significant evolution during the development of the Geneva Conventions mostly because of rapid technological change in aircraft design and practical considerations on the battlefield. World War I was the first conflict in which medical aircraft were used to any great extent. Therefore, Geneva 1929 was the first to contain provisions regarding medical aircraft. Without agreement with the enemy, medical aircraft were prohibited from flying forward of the position of the medical clearing station.<sup>47</sup> Unfortunately, because of the difficulty in recognizing medical aircraft before attacking them, this provision did not prove effective in protecting medical aircraft during World War II. Therefore, Geneva 1949 provides that medical aircraft are generally prohibited from flying over enemy territory, and, when they are flying over friendly territory, they are fully protected only while flying according to flight plans agreed upon between belligerents.<sup>24,25</sup> Protocol I allows medical aircraft to fly over friendly territory without first securing agreement approving such flights, although for additional safety it recommends notifying the enemy. Over contested areas or over enemy territory, medical aircraft can expect to be protected only if prior agreement has been reached between the belligerents. Yet, under any circumstance, once a medical aircraft is correctly identified by the enemy, it must be respected. The protocol also contains a number of provisions intended to ensure the protection of medical aircraft by their rapid identification using distinctive emblems, lights, radio signals, and electronic signatures.<sup>32</sup>

### *Hospital Ships*

Hospital ships and coastal rescue craft, unlike medical vehicles and aircraft, are exempt from capture when operating in compliance with the Geneva Conventions. However, in order to prevent a hospital ship from interfering with an enemy's military operations, the enemy may exercise control over it. This control includes searching the hospital ship, dictating its course, putting a commissioner on board, detaining it, or controlling its use of communications equipment.<sup>25</sup> The searching serves the same purpose as the searching of medical aircraft, to ensure that the hospital ship is operating in compliance with the Geneva Conventions. The enemy may dictate its course by refusing its help, ordering it off, or determining its direction and speed. The purpose of a commissioner on board is to en-

sure that the hospital ship follows the orders given it. The enemy may detain a hospital ship, but only under exceptional circumstances, and this detention may not exceed 7 days. The time limit, which was new to Geneva 1949, should prevent abuses such as the Japanese detention of The Netherlands hospital ship *Op ten Noort* for 8 months during World War II.<sup>48</sup> In regard to communication equipment, it is forbidden at all times for a hospital ship to possess or use secret codes.<sup>25</sup> During World War II, the German hospital ship *Ophelia* was legally captured when its crew threw a code book overboard while being boarded for inspection.<sup>23</sup> Although it is within the spirit of the Geneva Conventions that there should be nothing secret in the behavior of a hospital ship, the need to transmit and receive information in the clear has led to a variety of problems. For example, in 1982 during the Falklands War between Great Britain and Argentina, all of the weather information was disseminated in code to the British fleet. The British hospital ships, unable to decode this information, were unable to avoid the severe South Atlantic winter storms. Also, there was the problem of a warship arranging a rendezvous with a hospital ship. This was partially solved by an agreement between Argentina and Great Britain to designate a "Red Cross Box" north of the islands where hospital ships could safely take aboard and exchange the wounded and sick.<sup>49</sup>

Not only is a hospital ship exempt from capture but so are the crew and medical personnel assigned to it. Therefore, these medical personnel are treated in a fundamentally different fashion than other medical personnel. The reason for this is because exempting a hospital ship from capture without exempting its crew and personnel would prevent it from carrying out its mission and would turn it into a mere derelict. The exemption from capture extends throughout the period of time the crew and personnel are assigned to the ship, whether or not they happen to be on board at the time they fall into enemy hands. Similarly, their immunity from capture may not be suspended even if there happens not to be any wounded or sick on board. Medical personnel captured while serving aboard warships or in situations other than serving aboard hospital ships can be retained by the enemy. Wounded and sick aboard hospital ships or other ships become prisoners of war if captured, but the belligerent capturing them must be able to care for them before moving them.<sup>25</sup>

Hospital ships may be as big or as small as a nation wishes to make them, although, for the comfort and safety of the patients on board, the conventions recommend that they be over 2,000 tons.<sup>25</sup>



This provision, which was new to Geneva 1949, was included because of Great Britain's announcement during World War II that it would refuse to recognize as protected any hospital ship of less than 3,000 tons; their announcement was in response to the large number of small rescue craft used by Germany to pick up downed pilots in the immediate vicinity of Britain's coastal defenses at a time when invasion by Germany was thought imminent.<sup>23</sup>

Ships may be built specifically as hospital ships, or merchant ships may be converted into hospital ships. But, once a ship becomes a hospital ship, it must remain a hospital ship throughout the duration of the hostilities.<sup>25</sup> During World War I it had been the practice of Great Britain to move merchant ships in and out of medical service, prompting Germany to torpedo a number of them.<sup>18</sup> Also, there were instances of hasty conversion of merchant ships into hospital ships to avoid capture, such as the German ship *Rostock* in the besieged port of Bordeaux in 1944. A rule requiring a 10-day advanced notification before employment of a hospital ship should prevent abuses of this sort.<sup>23</sup> Both rules should cause fewer attacks on hospital ships and allow for better protection of the wounded and sick aboard all hospital ships.

## Medical Units

Protocol I defines "medical units" as "establishments and other units, whether military or civilian, organized for medical purposes, namely the search for, collection, transportation, diagnosis or treatment—including first-aid treatment—of the wounded, sick and shipwrecked, or for the prevention of disease."<sup>32</sup> Medical units may be large or small, fixed or mobile, permanent or temporary. Included in this definition would be not only hospitals, dental units, and preventive medicine units, but also blood collection centers, places where medical supplies are stored, and garages where medical vehicles are parked or repaired. Thus, the "medical purpose" to which the unit is assigned must be interpreted flexibly. However, whatever medical assignment is made must be performed exclusively by that unit, whether for an indeterminate period or a limited period of time, in order for the unit to be considered a medical unit. A hospital with a large store of munitions in its basement would not be performing its medical mission exclusively and, consequently, would not be afforded protections.

The primary right of medical units is the same as for medical personnel, that they must be respected and protected at all times.<sup>24,27,32,33</sup> This means

that the enemy may not intentionally harm them in any way or allow them to come to harm without coming to their aid. This also means that they must be allowed to carry out their medical mission without interference and with assistance, if required. For example, the enemy must not prevent the delivery of medical supplies to a medical unit and, if necessary, must help to ensure the delivery of those supplies. Respect and protection does not mean that a medical unit cannot be occupied by the enemy, but it does mean that the wounded and sick, medical personnel, and medical equipment must be treated with consideration. Also, if a medical unit is occupied, the enemy must allow the unit to continue its work, at least until other arrangements have been made to care for the wounded and sick.

The requirement to respect and protect medical units does not mean that they may not be harmed unintentionally. Medical units may suffer collateral damage caused by attacks directed against legitimate targets, especially during aerial or artillery bombardments. Therefore, it is the responsibility of the military authorities to situate medical units in such a fashion that attacks against military objectives will not imperil their safety.<sup>24,32</sup> This does not mean that medical units cannot be placed near militarily important targets; at times this will be unavoidable. But, under no circumstances may a medical unit be placed so as to intentionally shield a military objective with the hope that the enemy will hesitate to attack the objective for humanitarian reasons. This would expose the wounded and sick and other protected personnel to unnecessary risk of serious harm and would be completely contrary to the spirit of the Geneva Conventions.

In order to retain their protections, medical units must not be used to commit acts harmful to the enemy. Such acts would include using a hospital as housing for uninjured soldiers, as an ammunition dump, or as an observation post. Another example would be deliberately placing a mobile medical unit to impede an enemy attack. In order for a medical unit to forfeit its protections, the harmful acts must also be outside the humanitarian duties of the unit. There are some humanitarian acts that may be harmful to the enemy, but that do not warrant termination of protections. For example, returning previously sick soldiers to duty is harmful to the enemy but within the scope of the humanitarian activities of a hospital. Another example would be the use of an x-ray machine that unintentionally interferes with an enemy's radio or radar. In the event that a unit does commit acts that are hostile and not of a humanitarian nature, before protections cease, the enemy must warn the unit to put an end

to its hostile acts within a reasonable time limit. The length of the time limit is not specified and will vary with the situation. It must be long enough to allow compliance with the warning or, at least, to allow evacuation of the wounded and sick from the unit.<sup>24</sup>

### ***Allowable Conditions***

There are certain conditions that may be present that do not deprive a medical unit of its protections.<sup>24</sup> The most important of these is that medical personnel may carry arms for their own defense and for the defense of the wounded and sick under their care. US policy has been that these arms may be small arms, although heavier weapons might be allowed under certain circumstances. Medical personnel may only resort to the use of arms for defensive purposes. They must refrain from aggressive action, and they may not use the force of arms to prevent the capture of their unit by an enemy showing the proper respect for protected personnel and material.

Although a medical unit may not shelter healthy soldiers, in the absence of sufficient numbers of armed medical personnel to ensure the unit's security, there may be sentries, guards, or armed escorts who are not normally part of the unit. Their role is strictly defensive in nature. Members of the veterinary service are also not protected personnel, yet they and their equipment may be found in a medical unit even though they do not form an integral part of it. The presence of armed guards or the veterinary service does not diminish the protections afforded a medical unit. If captured, unlike medical personnel, armed guards and veterinary personnel become prisoners of war.

Medical units may not act as depots for nonauthorized military weapons. However, wounded and sick soldiers may still be in possession of weapons when they arrive, which will be taken from them and stored until they can be turned over to the proper authorities. The presence of these arms in a medical unit may not be construed by the enemy as a breach of the conventions.

A provision added to the 1949 Geneva Conventions states that medical units cannot be denied protections because they are caring for civilian wounded and sick. The wounding of civilians in wartime has become an increasingly greater problem since the

beginning of the 20th century. It is natural that some of them will find their way to military medical units. It is entirely consistent with the humanitarian purpose of military medical units to extend care to civilians. It had been the custom prior to 1949, but the custom had not been officially sanctioned until then. This provision has its counterpart in Geneva IV wherein civilian hospitals are authorized to shelter and treat military wounded and sick.<sup>27</sup>

### ***The Capture of Medical Units and Material***

Geneva 1929 stipulated that mobile military medical units falling into enemy hands were to be returned, along with their personnel, as soon as possible. However, the experience of World War II demonstrated that repatriation was an unrealistic goal. Therefore, along with the change from repatriation to retention of medical personnel, Geneva 1949 also provides that mobile medical units can be retained, but the retained material must be reserved for the care of the wounded and sick.

Unlike mobile medical units, fixed medical establishments remain "subject to the laws of war." This means that the movable property may be removed and taken away by the captor and the real property may be used as needed. This rule is tempered by the fact that the captor must continue to use the fixed establishment for the benefit of the wounded and sick as long as it is needed, unless there is urgent military necessity to use the property otherwise, but then only if provision has been made for the continued care of the wounded and sick contained in the facility. Thus, regarding the capture of fixed medical establishments, military need is subordinated to humanitarian requirements.

An entirely new provision of the 1949 Conventions states that the material and stores of mobile or fixed medical units may not be intentionally destroyed. This provision does not confine itself to protecting medical material against destruction by the enemy; it also protects the material in cases where those owning it may be tempted to destroy it rather than allowing it to fall into enemy hands. Therefore, if medical personnel are forced to abandon their medical facility, they must either take medical equipment and other material with them, or they must leave the facility and its material undamaged for the enemy to capture and use.<sup>24</sup>

## **MEDICAL ETHICS: PROVIDING A GUIDELINE FOR MEDICAL CARE IN WAR**

How should medical personnel exercise their duty to care for the wounded and sick? The 1977

Protocols<sup>32(Art16)</sup> identify medical ethics as the appropriate guide:

- (1) Under no circumstances shall any person be punished for carrying out medical activities compatible with medical ethics, regardless of the person benefiting therefrom.
- (2) Persons engaged in medical activities shall not be compelled to perform acts or to carry out work contrary to the rules of medical ethics or to other medical rules designed for the benefit of the wounded and sick or to the provisions of the Conventions or of this Protocol, or to refrain from performing acts or from carrying out work required by those rules and provisions.

Medical ethics have always been the appropriate guide implied by the Geneva Conventions to direct physician behavior on the battlefield, yet it was not explicitly stated as such until the advent of the 1977 Protocols.

Nowhere in the protocols is the term “medical ethics” defined. Presumably, the protocols are referring to generally accepted medical ethical principles. There are both international and national dimensions to these principles. On the one hand, there are various codes and rules of medical ethics that are internationally recognized. These would include the Declaration of Geneva<sup>50</sup> (a modern day Hippocratic Oath), the International Code of Medical Ethics,<sup>51</sup> the Regulations in Time of Armed Conflict,<sup>52</sup> the Rules Governing the Care of Sick and Wounded, Particularly in Time of Conflict,<sup>53</sup> the Declaration of Helsinki,<sup>54</sup> the Declaration of Tokyo,<sup>55</sup> and the Statement on Physician-Assisted Suicide.<sup>56</sup> All of these codes (which are reproduced in the Attachments following the chapter) were adopted by the World Medical Association, and the rules concerning war and armed conflict were adopted jointly by the World Medical Association, the International Committee of Military Medicine and Pharmacy, and the ICRC. The World Medical Association consists of the major medical associations from around the world, including the American Medical Association; therefore the various codes listed have wide acceptance. The essential principle running through these codes is that medical personnel should always act in the interest of the wounded or sick person, whoever he is, helping him to the fullest extent possible, and never taking advantage of his position of relative weakness and dependence. These are the guiding principles in the Geneva Conventions and the protocols.

On the other hand, none of these codes has the force of law, and there are still significant variations in medical standards from one nation to another. Therefore, international humanitarian law does not demand the application of universal standards, but

rather allows nations to apply to the care of the wounded and sick their own generally recognized standards of medical ethics. Although there is much common ground internationally, the concept remains, for now, a national one.<sup>45,46,57,58</sup>

Excluded from the concept of medical ethics are any rules intended for the benefit of the profession rather than for the benefit of the wounded and sick. During the drafting of the protocols it was successfully argued that the term “professional ethics” should be changed to “medical ethics” to exclude inappropriate rules. As an example, it was pointed out that some codes of professional ethics prohibit doctors from cooperating in the performance of medical procedures by unlicensed personnel. Although such policies might be appropriate in many communities, it is necessary to use trained paramedical personnel in isolated military units where no licensed physicians are available. It was felt that having physicians use “medical ethics” rather than “professional ethics” as the guide would not prevent physicians from working with and training such personnel and would, in general, focus attention on the patient rather than on the profession.<sup>59-61</sup>

Also excluded are personal codes of medical ethics that are in conflict with national standards. A case in point is *US v. Levy*, the court-martial of Captain Levy, an Army physician during the Vietnam War. Dr. Levy refused to provide medical training to Special Forces personnel, contending that they were combat personnel who would be used to commit war crimes in Vietnam, and that this was a violation of his concept of medical ethics. The court concluded that a personal concept of medical ethics could not be used as an excuse to disobey an otherwise lawful order.<sup>62,63</sup>

The issue raised in *US v. Levy* is also the subject of a reservation proposed by the State Department to the previously quoted Article 16 of Protocol I and a very similarly worded Article 10 of Protocol II:

The United States reserves as to Article 10 to the extent that it would affect the internal administration of the United States Armed Forces, including the administration of military justice.<sup>64</sup>

The State Department has proposed the reservation “to preserve the ability of the US Armed Forces to control actions of their medical personnel, who might otherwise feel entitled to invoke these provisions to disregard, under the guise of ‘medical ethics,’ the priorities and restrictions established by higher authority.” The State Department is concerned that, without the reservation, military medical personnel might defer to their own personal interpreta-

tion of medical ethics as justification for refusing to perform their medical duties according to established national norms. The State Department is also concerned that definition of the term “medical ethics” might be determined by some currently undetermined international standards that would be open to political manipulation.<sup>64,65</sup> The State Department’s concerns are probably unnecessary. True violations of medical ethics that have occurred in wartime are not normally of a subtle, political nature, but rather are obvious violations of basic humanitarian principles. Additionally, medical per-

sonnel have always been guided by medical ethical principles, which, even if not codified, have nonetheless been clear enough to lead to appropriate behavior. And finally, the Geneva Conventions by themselves contain the basic ethical principles needed to guide the activity of medical personnel on the battlefield. Fortunately, the reservation confines itself to areas of concern where medical personnel would not normally invoke the principles of medical ethics; therefore, the reservation should have no adverse effect on how medical personnel perform their humanitarian duties.

## RESPONSIBILITIES OF MEDICAL PERSONNEL

The previous sections have defined the participants (medical personnel and the wounded and sick), discussed their protections, and delineated the general guidelines for rendering medical care. This section will pursue more specifically the responsibilities of medical personnel who are providing care in combat theaters and occupied territories.

### **In Combat Theaters**

The most difficult place to render medical care would have to be in a combat theater. In a combat situation, long periods of quiet (and boredom) are broken by shorter periods of intense and overwhelming activity. Under these stressful conditions, medical personnel must locate and care for not only their own wounded and sick, but also the wounded and sick of the enemy. And, despite the stress, the medical care rendered must be efficient, effective, and ethical.

#### *Locating and Collecting the Wounded and Sick*

Belligerents have a general obligation to search for and collect the wounded, sick, and dead. The absence of this obligation during the Battle of Solferino in 1859 was one of the major motivations for Henry Dunant to write his book prompting the development of the Geneva Conventions. However, it was not until Geneva 1906 that an obligation to search for the wounded was imposed. Geneva 1929 made the obligation applicable only after a battle. Now the requirement is to search “at all times.” The search should take place not only after a battle, but during the battle as well. Military conditions will determine when it is practical to do so.<sup>24,25,27,32,33</sup> Searching for the wounded and sick will protect them against robbery and ill-treatment and ensure that they are

cared for in an expedient manner. First aid must be rendered to the enemy wounded and sick just as it would be to one’s own troops. Hence, medical personnel are likely to be among the first on the scene in fulfilling this obligation. Searching for the dead will prevent the bodies from being robbed and ensure a timely and dignified burial or cremation. Prior to burial or cremation, medical personnel must perform a medical examination on the body for the purpose of confirming death and establishing identity.<sup>24–27</sup>

Medical personnel may be called upon to enter a besieged area in order to deliver medical supplies or render medical care to their own nationals or enemy nationals. Evacuated wounded and sick may be allowed to pass through enemy lines and return to their own side, or they may be made prisoners of war. Their status, and the status of medical personnel entering the besieged area, would be decided by local arrangement between opposing commanders.<sup>24,25,27</sup>

#### *Caring for the Wounded and Sick*

The primary duty owed to the wounded and sick was stated in Geneva 1864 as simply that they shall be “taken care of.”<sup>11</sup> In 1906 the idea of “respect” was added.<sup>42</sup> Finally, in 1929 the primary duty was expanded to include “protection” and “humane treatment” of the wounded and sick.<sup>47</sup> These four principles, that the wounded and sick must be respected, protected, cared for, and treated humanely, are at the heart of the Geneva Conventions and are repeated throughout the four conventions and the two protocols. In the context of the Geneva Conventions, the word “respect” means to spare and not to attack, whereas “protect” means to come to someone’s defense and to lend help and support.<sup>44</sup> Thus, it is not enough merely to assume a passive



attitude to the injured enemy soldier who is no longer fighting; it is mandatory to come to his rescue and to give him aid and care as required by his condition.

How should that care be rendered? It should be according to the dictates of medical ethics, and in this the conventions offer some specific guidelines. The most important guideline is that the medical care must be given without any adverse distinction. This principle of nondiscrimination follows both from medical ethics and is one of the fundamental rules of the Red Cross.<sup>66</sup> In all earlier versions of the Geneva Conventions, the only adverse distinction specifically mentioned was that based on nationality.<sup>11,42,47</sup> However, World War II showed that this by itself was inadequate. Therefore, Geneva 1949 widened the list of adverse distinctions that are forbidden to include those based on sex, race, nationality, religion, and political opinions.<sup>24,25</sup> Protocol I adds color, language, social origin, wealth, and status by birth to that list. The list is not meant to be all inclusive, for the catch-all phrase “any other similar criteria” is also mentioned.<sup>32</sup> Any distinction that is made between patients must be based on the requirements of the patients. Thus, in addition to distinctions based on differences in the medical conditions of patients, distinctions can be made to take into account differences in physical attributes or customs. For example, women should receive special consideration, and it would not be a breach of rules to give extra blankets to someone who is normally accustomed to a tropical climate or special food to someone accustomed to a different diet. Any distinction should have a rational and humanitarian basis and be determined by what will hasten the recovery of the patient.

Another guideline offered by the conventions is that only “urgent medical reasons” can be used to justify the priority of treatment provided to the wounded and sick.<sup>24,25</sup> However, nowhere does it specify what those “urgent medical reasons” are. In mass-casualty situations when medical resources are constrained, current doctrine dictates that a wounded individual with a life-threatening injury should be treated before someone with a more minor injury, and it might be necessary to allow an individual to die who is so seriously injured that his chance of survival is small even with massive intervention. Other methods of triage have been used at other times and in other situations. No single method is dictated by the conventions or the protocols. Once again, the dictates of medical ethics must determine the criteria used.

Protocol I stipulates that any medical procedure

performed (or omission of a procedure) must meet two criteria in order to be justified: (1) it must be indicated by the state of health of the patient, and (2) it must meet “generally accepted medical standards.”<sup>32</sup> The first criterion by itself is not enough. Based on this criterion alone the Nazis were able to justify the killing of the mentally incompetent and chronically ill. However, this type of activity would be precluded by the need to also meet medical standards that are generally accepted by the international community. Unfortunately, there is nothing specific to which one can refer when trying to determine what international standards are in effect. The World Medical Association documents referred to earlier are a guide. Certainly one undeniable international standard must be that for any procedure to be indicated, it must be for the benefit of the patient, to either improve his health or reduce his suffering. However, there are international standards that cannot be universally applied. For instance, certain levels of medical training and certain medical techniques or procedures may be considered the international norm, yet very poor countries may be unable to meet those standards. In acknowledgment of this problem, the protocol allows a nation to treat the enemy wounded and sick the same as it would treat its own nationals who are in no way deprived of their liberty (hence, standards that apply only to prisoners would be unacceptable). But, there can be no doubt that if national standards are used, they cannot fall below certain minimum standards in order to be in compliance with Geneva 1949 and the 1977 Protocols.<sup>45,46</sup>

### *Establishing and Maintaining Medical Records*

The keeping of medical records, in general, is not required by the conventions, except in the case of donations of blood and skin. However, Protocol I does recommend that, in the case of prisoners of war or other detainees, medical personnel should keep records and that these records should be available for inspection.<sup>32</sup> The purpose of maintaining the medical records is two-fold. The primary purpose as envisioned by the protocol is to prevent abuses and to detect breaches of the conventions. Obviously this is not a foolproof method for preventing abuses, especially abuses involving omissions that endanger someone's health. Yet it is a useful tool, because the records can be inspected without warning by the ICRC or other authorized entity. The secondary, yet much more useful, reason for maintaining medical records is to enhance

the provision of medical care. The exact format and content of the records is not specified, although, as a practical matter, they should be clear and sufficient to accomplish the latter goal.

The ICRC has established a Central Tracing Agency for the purpose of reestablishing contact between victims of war and their families. This agency gathers and transmits information about prisoners of war and those who are wounded, sick, or dead, searches for missing persons, delivers messages between families and victims of war, and organizes reunions and repatriations. Information about victims of war reaches the Central Tracing Agency via national Information Bureaus, which every belligerent must set up at the beginning of hostilities and during occupations.<sup>26,27</sup> Medical personnel are responsible for recording and forwarding information to their national Information Bureau, which can help in identifying the enemy sick, wounded, or dead who may fall into their hands. The required information includes name, country, serial number, date of birth, and any information concerning the individual's illness, wounds, or cause of death. In the event of death, it is also required to send to the national Information Bureau any personal documents, money, or articles of intrinsic or sentimental value that the individual possessed.<sup>24,25</sup> In the case of wounded or sick prisoners of war or civilian internees, regular updates regarding the state of health of the individuals concerned are required.<sup>26,27</sup>

### ***The Extreme Situation: Leaving the Wounded and Sick Behind***

Under certain circumstances it may be necessary to abandon some of one's own wounded and sick to the enemy. This would be an unusual event, because the wounded and sick almost always are moved with the unit holding them. When the event does occur, it is most likely to arise in a situation where the enemy is advancing rapidly and a medical unit has insufficient time and transportation assets to move everything and everybody quickly. Whatever the cause of abandonment, the Conventions require that sufficient medical personnel and material be left behind to assist in their care. However, this obligation is not an absolute one, for it is mandatory only "as far as military considerations permit."<sup>24</sup>

Leaving medical personnel behind with the wounded and sick constitutes a more difficult decision than leaving behind medical supplies. At one extreme, it is clear that a medical unit commander should leave medical personnel behind with the

abandoned wounded and sick in his unit if he is ordered to do so by a higher headquarters. At the other extreme, it is clear that he should not leave medical personnel behind if he is certain that the enemy will kill them, abuse them, or otherwise prevent them from fulfilling their medical mission. However, there are many circumstances where the answers are not so clear. For instance, what should a commander do when he is concerned that leaving medical personnel behind will leave his unit short of help to tend for future casualties? The commentator on the 1929 Geneva Conventions had this to say:

This obligation, natural and necessary as it is, may be a heavy charge if, for example, a retreating belligerent is compelled to abandon several groups of wounded in turn, leaving medical personnel and equipment with them each time. He runs the risk in such a case of having no medical personnel or equipment left for those of his troops who are the last to fall. That cannot be helped. It is his duty to provide for present needs without keeping back the means of relieving future casualties. If as a result he has no more medical personnel or equipment for subsequent casualties, he will have to do all he can to ensure that they receive relief, even appealing, in such a case to the charity of the inhabitants, as he is entitled to do under Article 5.<sup>67</sup>

And yet, circumstances may exist that cause a commander to take a different course. Any decision about abandoning wounded and sick must be firmly founded on ethical principles. Pictet sets the guideline for making this decision when he states,

If this provision cannot, therefore, be considered imperative, it represents nonetheless a clear moral obligation which the responsible authority cannot evade except in cases of urgent necessity....[This provision] is a recommendation, but an urgent and forcible one.<sup>44</sup>

Regardless of the decision on leaving medical personnel behind, if wounded and sick must be abandoned, they should be left with sufficient food and medical supplies to ensure their ongoing care, they should be clearly marked as protected persons, and, if possible, the enemy should be notified of their location. Any medical personnel left behind must not use their arms against the enemy occupying their location, unless forced to do so in self-defense or defense of the patients, and they must try by means of discussion and persuasion to do all they can for their patients. Additionally, they must not hesitate to care for any newly arrived casualties.

Finally, medical personnel may never refuse to care for wounded and sick that may have been abandoned by the enemy on the pretext that they were abandoned without medical personnel or supplies.

### **In Occupied Territories**

Occupying forces have certain obligations in occupied territories that may involve medical personnel. These include ensuring that the civilian population has adequate food and medical supplies, cooperating with local and national authorities in maintaining hospitals and medical services, and ensuring public health and hygiene.<sup>27</sup> Following a military engagement there is frequently a breakdown in public services and infrastructure. Especially when large refugee populations are involved, the lack of basic essentials may lead to widespread disease and epidemics. It is incumbent upon the invading force to be proactive in this regard. Yet it is not solely their responsibility. The local healthcare community has a role to play, as well. Ideally, the community will be able to provide its own services, in which case the only obligation of the occupying force would be to prevent any hindering of that effort. If this is not the case, support may be required. This may involve providing advice to local authorities, public education, immunization programs, medical supplies, medical support to epidemic areas, and new hospital construction. To ensure effectiveness and a degree of harmony with the local population, due regard must be paid to the habits and customs of the civilian community.

Under certain circumstances it may be necessary to requisition civilian hospitals in order to care for military wounded and sick. This has always been allowed, although the Geneva Conventions provide certain safeguards against abuses. In order to legally requisition a hospital, it must be used only for the care of the military wounded and sick, there must be an urgent need, and suitable arrangements must be made to ensure that the persons already hospitalized there will receive adequate care and that the needs of the civilian population will be met. Furthermore, the requisition can only be temporary; the hospital must be returned when the emergency has been resolved. It follows that an occupying force may not requisition a hospital if it is capable of caring for its own wounded and sick, nor may it, under any circumstances, use a requisitioned hospital for any purpose other than the provision of medical care. Medical supplies in a civilian hospital may also be requisitioned separate from the hospital. Again, there must be an urgent need, the hospital

patients and civilian population must not be left wanting, and the supplies must be replaced as soon as possible.<sup>27</sup>

### **Refraining From Prohibited Acts**

Certain medical procedures are specifically prohibited by the conventions. Geneva 1949 mentions torture and biological experiments.<sup>24–27</sup> Protocol I adds physical mutilations and removal of tissue or organs for transplantation.<sup>32</sup> These acts, along with murder and willfully causing great suffering or serious injury, are considered “grave breaches” when they are committed against the wounded and sick or other protected persons. By international humanitarian law the State must immediately put a stop to any violations of this type and punish the violators. The violators include not only those who actively commit the crimes, but also those who order the commission of the crimes by their subordinates or who know that a subordinate is committing or about to commit crimes without taking every measure possible to prevent them. The State must bring violators before its own courts, regardless of their nationality, or it may turn them over to another State that wishes to prosecute them.<sup>68</sup>

### **Torture**

Torture in wartime is usually used to extract information from the enemy. However, it may also be used to merely punish an individual physically or damage him psychologically. Torture may include acts of abuse ranging from cruel and degrading treatment to physical assaults leading to death. Physician participation in torture has occurred throughout history. The most recent, glaring examples were revealed in the war crimes trials following World War II. Unfortunately, torture and physician participation in it have frequently been given legal respectability by governments that lacked moral integrity. A physician may participate in torture by administering a drug to an individual to facilitate interrogation, or by evaluating whether a prisoner is physically capable of undergoing torture for purposes of interrogation. A physician may participate in torture by wrongly applying psychiatric diagnosis and treatment to fulfill a political goal. A physician may even participate in torture by using his medical skills to devise new methods of torture, even though he is not directly involved in administering that torture. Whether or not physician participation in capital punishment represents participation in torture is still an open debate.

Although the law may allow it, many national and international medical groups consider such an act unethical.<sup>69</sup>

### ***Experimentation***

The prohibition against medical, biological, or other scientific experiments arose out of the experience of World War II. In peacetime, scientific experiments involving human subjects are necessary for the progress of medicine, provided that the necessary precautions are taken to assure safety and complete consent. In wartime it is impossible to be certain of complete consent, given freely, of any person protected by the Geneva Conventions. The mere fact that the individual is under the control of his enemy makes that consent very suspect. Therefore, experiments involving enemy prisoners of war, enemy wounded and sick, and enemy civilians are prohibited. However, this prohibition does not preclude medical personnel from using new methods of treatment that are justified on medical grounds and used solely with the intention of improving the patient's health. For instance, one might justify giving a new medication that is not yet in general use in the hope that it will benefit a patient who would otherwise die without it. Where this kind of treatment finally crosses the line and becomes a "medical experiment" is determined by medical ethics.

### ***Mutilation***

Physical mutilations are prohibited and would never seem to be allowed under any circumstances. However, the term might also encompass procedures such as amputations, which, under certain circumstances, are absolutely essential. Therefore, a logical interpretation would be that if the procedure is medically indicated and within generally accepted medical standards it is not a "physical mutilation" and, therefore, not forbidden.

### ***Transplantation***

The transplantation of tissue or organs is a relatively modern development. It has become commonplace in peacetime, but in wartime the procedure is prohibited when it involves enemy nationals, because the removal of tissue or organs from the donor cannot be justified based on the state of health of the donor. In wartime, the benefit to be gained by the recipient is not outweighed by the potential for abuse of the donor. As with medical experiments, individuals in captivity or otherwise under

the control of their enemy are assumed to be unable to freely consent to transplantations. Presumably transplantation of organs from cadavers would also be prohibited because of the potential for abuse of the donor while alive (eg, hastening death to free up the organs more quickly), and also because of the requirement to ensure that those who have died in captivity are honorably buried.<sup>26,27</sup> If, in fact, an enemy soldier is in need of a transplant, possible solutions might be to find a donor among one's own nationals, or to send the individual, perhaps accompanied by a matching donor of his own nationality, back to his own country for the transplant. It should be noted that this rule does not disallow the removal of diseased organs for therapeutic reasons. Nor does it disallow autologous transplants, such as the removal of bone marrow from an individual with the intention of reimplanting it back into the same individual as part of a therapeutic procedure.

Protocol I does allow two exceptions to the prohibition against transplantations. One is blood for transfusion and the other is skin for grafting. These are extremely logical and useful exceptions to the transplantation rules. The donation of these tissues can be lifesaving, and the potential for abuse is not as great as with the donation of other tissues and organs. However, strict rules are mandated in order to prevent abuses. First, the donations must be absolutely voluntary; coercion (threats, punishments, etc.) and even inducements (promises, rewards, etc.) are explicitly prohibited. Second, the donations must be for therapeutic purposes only; removal of blood or skin for experimental purposes, for instance, would be prohibited. Third, the donations must be made under conditions consistent with generally accepted medical standards and in such a way that no harm comes to the donor or recipient; examples of generally accepted medical standards for blood transfusions would be the performance of certain tests on blood before it is transfused, and restrictions on the amount of blood that can be taken from an individual. And finally, records must be kept of every donation of blood or skin; the purpose of this compulsory record keeping is as an additional guarantee against abuses.<sup>32</sup>

### ***Surgery Without Consent***

A well-recognized medical ethical standard, reiterated in Protocol I, is that a patient has the right to refuse any surgical procedure, even if it absolutely necessary for his survival and in every other way medically justifiable.<sup>32</sup> This requirement must be tempered with a certain amount of logic. Obvi-



ously, a surgeon should not feel bound by a refusal expressed by a child or by someone whose judgment has been impaired by his injury or illness. A gray area may be encountered when someone refuses a procedure but then falls into a coma, or when someone claims to speak for someone else in refusing a procedure. Delicate problems of medical ethics may arise for which there are no clear answers. If a surgeon decides that he is not ethically bound by a refusal and proceeds with an operation, he should be absolutely certain that the operation is medically

justified and within generally accepted medical standards. In the event of any refusal, medical personnel should endeavor to obtain a written statement to that effect that is signed or acknowledged by the patient. This may not always be possible during the chaos created by war, and a written refusal is not mandated. Yet it would seem advisable to at least document the refusal or the ignoring of a refusal in the patient's medical record when time allows it, if for no other reason than to prevent any claim at a later date of a breach of the conventions.

## CONCLUSION

The four Geneva Conventions of 1949 and the two 1977 Protocols form as complete a system of protections for the victims of war as one can expect, short of the banning of all forms of warfare. The details and specific provisions within them are changing over time, primarily in response to changes in technologies, customs, and methods of warfare, but the basic underlying humanitarian principles have remained unchanged. Concerning the provision of medical care, the focus is on the wounded and sick, reducing their suffering and speeding their recovery. All of the protections granted military medical personnel and medical equipment are granted solely with this intent in mind.

How medical personnel should behave so as not to jeopardize their protection is summarized best by the protocols wherein medical ethics are declared the guide. Many military medical personnel are not well schooled in the military arts and, therefore, have only a partial understanding of the multidimensional problems that can be encountered on the battlefield. But nearly all are well schooled in medical ethics. If they keep medical ethical principles in mind when treating their patients and are familiar with their rights and duties as put forth by the law of Geneva, they will be more able to cope with the battlefield situation in an appropriate, humanitarian fashion.

## REFERENCES

1. Pictet J. International humanitarian law: Definition. In: *International Dimensions of Humanitarian Law*. Geneva: Henry Dunant Institute; 1988.
2. Friedman L, ed. *The Law of War: A Documentary History*. Vol 2. New York: Random House; 1972.
3. Sun Tzu. *The Art of War*. London: Oxford University Press; 1963.
4. Deuteronomy 20:10–20.
5. Bordwell P. *The Law of War Between Belligerents: A History and Commentary*. Chicago: Callaghan & Co; 1908.
6. Keen MH. *The Laws of War in the Late Middle Ages*. London: Routledge & Kegan Paul; 1965.
7. Grotius H. De jure belli ac pacis. In: Scott JB, ed. *The Classics of International Law*. Oxford: Clarendon Press; 1925.
8. Butler G, MacCoby S. *The Development of International Law*. London: Longmans Green & Co; 1928.
9. Dunant H. *A Memory of Solferino*. Geneva: International Committee of the Red Cross; 1986.
10. Resolutions of the Geneva International Conference, 26–29 October 1863. In: Schindler D, Toman J, eds. *The Laws of Armed Conflicts: A Collection of Conventions, Resolutions and Other Documents*. Dordrecht, The Netherlands: Martinus Nijhoff Publishers; 1988.
11. 1864 Red Cross Convention for the Amelioration of the Condition of the Wounded in Armies in the Field. In: Friedman L, ed. *The Law of War: A Documentary History*. Vol 2. New York: Random House; 1972.

12. Gagnebin B, Gazay M. *Encounter With Henry Dunant*. Geneva: Librairie de l'Université Georg et Cie; 1963.
13. Boissier P. *History of the International Committee of the Red Cross From Solferino to Tsushima*. Geneva: Henry Dunant Institute; 1985.
14. Pictet J. *Development and Principles of International Humanitarian Law*. Dordrecht, The Netherlands: Martinus Nijhoff Publishers; 1985.
15. Vollmar LC. Development of the laws of war as they pertain to medical units and their personnel. *Mil Med*. 1992;157:231–236.
16. Durand A. *History of the International Committee of the Red Cross from Sarajevo to Hiroshima*. Geneva: Henry Dunant Institute; 1984.
17. Draper GIAD. The development of international humanitarian law. In: *International Dimensions of Humanitarian Law*. Geneva: Henry Dunant Institute; 1988.
18. Green LC. *Essays on the Modern Law of War*. Dobbs Ferry, New York: Transnational Publishers; 1985.
19. *US v Greifelt*. In: *Trials of War Criminals Before the Nuremberg Military Tribunals Under Control Council Law*. Vol 4–5. Washington, DC: US Government Printing Office; 1950.
20. *US v Brandt*. In: *Trials of War Criminals Before the Nuremberg Military Tribunals Under Control Council Law*. Vol 1–2. Washington, DC: US Government Printing Office; 1949.
21. US Department of the Army. *International Law*. Vol 2. Washington, DC: Department of the Army; 1962. Pamphlet 27-161-2.
22. Garner JW. *International Law and the World War*. Vol 1. London: Longmans Green & Co; 1920.
23. Oppenheim L. *International Law: A Treatise*. 7th ed. Vol 2. London: Longmans Green & Co; 1952.
24. 1949 Geneva Convention I for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field. In: Roberts A, Guelff R, eds. *Documents on the Laws of War*. 2nd ed. Oxford: Clarendon Press; 1989.
25. 1949 Geneva Convention II for the Amelioration of the Condition of the Wounded, Sick, and Shipwrecked Members of Armed Forces at Sea. In: Roberts A, Guelff R, eds. *Documents on the Laws of War*. 2nd ed. Oxford: Clarendon Press; 1989.
26. 1949 Geneva Convention III Relative to the Treatment of Prisoners of War. In: Roberts A, Guelff R, eds. *Documents on the Laws of War*. 2nd ed. Oxford: Clarendon Press; 1989.
27. 1949 Geneva Convention IV Relative to the Protection of Civilian Persons in Time of War. In: Roberts A, Guelff R, eds. *Documents on the Laws of War*. 2nd ed. Oxford: Clarendon Press; 1989.
28. US Department of the Army. *The Law of Land Warfare*. Washington, DC: Department of the Army; 1956. Field Manual 27-10.
29. US Department of the Air Force. *International Law—The Conduct of Armed Conflict and Air Operations*. Washington, DC: Department of the Air Force; 1976. AF Pamphlet 110-31.
30. US Department of the Navy. *Annotated Supplement to the Commander's Handbook on the Law of Naval Operations*. Washington, DC: US Department of the Navy; 1989. NWP (REV A) FM 1-10.
31. International Committee of the Red Cross. *1993 Annual Report*. Geneva: ICRC; 1993.
32. 1977 Geneva Protocol I Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts. In: Roberts A, Guelff R, eds. *Documents on the Laws of War*. 2nd ed. Oxford: Clarendon Press; 1989.

33. 1977 Geneva Protocol II Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of Non-International Armed Conflicts. In: Roberts A, Guelff R, eds. *Documents on the Laws of War*. 2nd ed. Oxford: Clarendon Press; 1989.
34. Dinstein Y. Commentator. *Am Univ Law Rev*. 1982;31:849–853.
35. Aldrich GH. Guerrilla combatants and prisoner of war status. *Am Univ Law Rev*. 1982;31:871–882.
36. Aldrich GH. Why the United States of America should ratify Additional Protocol I. In: Delissen AJM, Tanja G, eds. *Humanitarian Law of Armed Conflict Challenges Ahead*. Dordrecht, The Netherlands: Martinus Nijhoff Publishers; 1991.
37. Feith DJ. Protocol I: Moving humanitarian law backwards. *Akron Law Rev*. 1986;19(4):531–535.
38. Levie HS. Pros and cons of the 1977 Protocol I. *Akron Law Rev*. 1986;19(4):537–542.
39. Carnahan BM. Additional Protocol I: A military view. *Akron Law Rev*. 1986;19(4):543–549.
40. McMahon TE. A good treaty. *Akron Law Rev*. 1986;19(4):551–556.
41. Parks WH. Personal Communication, 1994.
42. 1906 Red Cross Convention for the Amelioration of the Condition of the Wounded and Sick in Armies in the Field. In: Friedman L, ed. *The Law of War: A Documentary History*. Vol 2. New York: Random House; 1972.
43. 1907 Hague Convention X for the Adaptation to Maritime Warfare of the Principles of the Geneva Convention. In: Friedman L, ed. *The Law of War: A Documentary History*. Vol 2. New York: Random House; 1972.
44. Pictet JS. *Commentary: Geneva Convention I for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field*. Geneva: International Committee of the Red Cross; 1952.
45. Bothe M, Partsch KJ, Solf WA. *New Rules for Victims of Armed Conflicts: Commentary on the Two 1977 Protocols Additional to the Geneva Conventions of 1949*. The Hague: Martinus Nijhoff Publishers; 1982.
46. Sandoz Y, Swinarski C, Zimmermann B. *Commentary on the Additional Protocols of 8 June 1977 to the Geneva Conventions of 12 August 1949*. Geneva: International Committee of the Red Cross; 1987.
47. 1929 Red Cross Convention for the Amelioration of the Condition of the Wounded and Sick of Armies in the Field. In: Friedman L, ed. *The Law of War: A Documentary History*. Vol 2. New York: Random House; 1972.
48. Pictet JS. *Commentary: Geneva Convention II for the Amelioration of the Condition of the Wounded, Sick and Shipwrecked Members of Armed Forces at Sea*. Geneva: International Committee of the Red Cross; 1960.
49. Levie HS. *The Code of International Armed Conflict*. Vol 2. New York: Oceana Publications; 1986.
50. The World Medical Association. *Declaration of Geneva*. Adopted by the 2nd General Assembly of the World Medical Association, Geneva, Switzerland, September 1948, amended by the 22nd World Medical Assembly, Sydney, Australia, August 1968, and the 35th World Medical Assembly, Venice, Italy, October 1983. In: *The World Medical Association Handbook of Declarations*. Ferney-Voltaire, France: The World Medical Association; 1993: Section 17.A.
51. The World Medical Association. *International Code of Medical Ethics*. Adopted by the 3rd General Assembly of the World Medical Association, London, England, October 1949, amended by the 22nd World Medical Assembly, Sydney Australia, August 1968, and the 35th World Medical Assembly, Venice, Italy, October 1983. In: *The World Medical Association Handbook of Declarations*. Ferney-Voltaire, France: The World Medical Association; 1993: Section 17.A.

52. The World Medical Association. *Regulations in Time of Armed Conflict*. Adopted by the 10th World Medical Assembly, Havana, Cuba, October 1956, edited by the 11th World Medical Assembly, Istanbul, Turkey, October 1957, and amended by the 35th World Medical Assembly, Venice, Italy, October 1983. In: *The World Medical Association Handbook of Declarations*. Ferney-Voltaire, France: The World Medical Association; 1993: Section 17.50.
53. The World Medical Association. *Rules Governing the Care of Sick and Wounded, Particularly in Time of Conflict*. Adopted by the 10th World Medical Assembly, Havana, Cuba, October 1956, edited by the 11th World Medical Assembly, Istanbul, Turkey, October 1957, and amended by the 35th World Medical Assembly, Venice, Italy, October 1983. In: *The World Medical Association Handbook of Declarations*. Ferney-Voltaire, France: The World Medical Association; 1993: Section 17.50.
54. The World Medical Association. *Declaration of Helsinki: Recommendations Guiding Physicians in Biomedical Research Involving Human Subjects*. Adopted by the 18th World Medical Assembly, Helsinki, Finland, June 1964, and amended by the 29th World Medical Assembly, Tokyo, Japan, October 1975, the 35th World Medical Assembly, Venice, Italy, October 1983, and the 41st World Medical Assembly, Hong Kong, September 1989. In: *The World Medical Association Handbook of Declarations*. Ferney-Voltaire, France: The World Medical Association; 1993: Section 17.C.
55. The World Medical Association. *Declaration of Tokyo: Guidelines for Medical Doctors Concerning Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment in Relation to Detention and Imprisonment*. Adopted by the 29th World Medical Assembly, Tokyo, Japan, October 1975. In: *The World Medical Association Handbook of Declarations*. Ferney-Voltaire, France: The World Medical Association; 1993: Section 17.F.
56. The World Medical Association. *Statement on Physician-Assisted Suicide*. Adopted by the 44th World Medical Assembly, Marbella, Spain, September 1992. In: *The World Medical Association Handbook of Declarations*. Ferney-Voltaire, France: The World Medical Association; 1993: Section 17.PP.
57. Baccino-Astrada A. *Manual on the Rights and Duties of Medical Personnel in Armed Conflicts*. Geneva: International Committee of the Red Cross and the League of Red Cross and Red Crescent Societies; 1982.
58. Levie HS. *The Code of International Armed Conflict*. Vol 1. New York: Oceana Publications; 1986.
59. Levie HS. *Protection of War Victims: Protocol I to the 1949 Geneva Conventions*. Vol 1. Dobbs Ferry, New York: Oceana Publications; 1979.
60. International Committee of the Red Cross. *Report on the Work of the Conference of Government Experts on the Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflicts*. Geneva: ICRC; 1971.
61. Swiss Federal Council. *Official Records of the Diplomatic Conference on the Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflicts, Geneva (1974–1977)*. Vol 1. Bern: Federal Political Department; 1978.
62. *US v Levy*. CMR. 1968;39:672–682.
63. *Levy v Parker*. Mil Law Rep. 1973;1:2130–2151.
64. Message from the President of the United States Transmitting the Protocol II Additional to the Geneva Conventions of August 12, 1949, and Relating to the Protection of Victims of Non-International Armed Conflicts, Concluded at Geneva on June 10, 1977. Senate Treaty Document 100-2, US Senate, 100th Congress, 1st Session. Washington, DC: US Government Printing Office; 1987.
65. Smith D. New protections for victims of international armed conflicts: the proposed ratification of Protocol II by the United States. *Mil Law Rev*. 1988;120(Spring):59–82.
66. 1978 Red Cross Fundamental Rules of International Humanitarian Law Applicable in Armed Conflicts. In: Roberts A, Guelff R, eds. *Documents on the Laws of War*. 2nd ed. Oxford: Clarendon Press; 1989.
67. Des Gouttes P. As quoted by Pictet JS. *Commentary: Geneva Convention I for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field*. Geneva: International Committee of the Red Cross; 1952: 141.



## **Chapter 23: ATTACHMENTS**

### **INTERNATIONAL GUIDANCE ON HUMANITARIAN CARE**

Resolutions of the Geneva International Conference Geneva, 26–29 October 1863

Convention for the Amelioration of the Condition of the Wounded in Armies in the Field, Geneva, 22 August 1864

World Medical Association (WMA) Documents:

WMA Declaration of Geneva

WMA International Code of Medical Ethics

WMA Regulations in Time of Armed Conflict

WMA Rules Governing the Care of Sick and Wounded, Particularly in Time of Conflict

WMA Declaration of Helsinki

WMA Declaration of Tokyo

WMA Statement on Physician-Assisted Suicide

1978 Red Cross Fundamental Rules of International Humanitarian Law Applicable In Armed Conflicts

### **RESOLUTIONS OF THE GENEVA INTERNATIONAL CONFERENCE**

#### **GENEVA, 26–29 OCTOBER 1863**

The International Conference, desirous of coming to the aid of the wounded should the Military Medical Services prove inadequate, adopts the following Resolutions:

#### **Article 1**

Each country shall have a Committee whose duty it shall be, in time of war and if the need arises, to assist the Army Medical Services by every means in its power.

The Committee shall organize itself in the manner which seems to it most useful and appropriate.

#### **Article 2**

An unlimited number of Sections may be formed to assist the Committee, which shall be the central directing body.

#### **Article 3**

Each Committee shall get in touch with the Government of its country, so that its services may be accepted should the occasion arise.

#### **Article 4**

In peacetime, the Committees and Sections shall take steps to ensure their real usefulness in time of war, especially by preparing material relief of all sorts and by seeking to train and instruct voluntary medical personnel.

#### **Article 5**

In time of war, the Committees of belligerent nations shall supply relief to their respective armies as far as their means permit; in particular, they shall organize voluntary personnel and place them on an active footing and, in agreement with the military authorities, shall have premises made available for the care of the wounded.

They may call for assistance upon the Committees of neutral countries.

#### **Article 6**

On the request or with the consent of the military authorities, Committees may send voluntary medical personnel to the battlefield where they shall be placed under military command.

#### **Article 7**

Voluntary medical personnel attached to armies shall be supplied by the respective Committees with everything necessary for their upkeep.

#### **Article 8**

They shall wear in all countries, as a uniform distinctive sign, a white armlet with a red cross.

#### **Article 9**

The Committees and Sections of different countries may meet in international assemblies to communicate the results of their experience and to agree on measures to be taken in the interests of the work.

#### **Article 10**

The exchange of communications between the Committees of the various countries shall be made for the time being through the intermediary of the Geneva Committee.

Independently of the above Resolutions, the Conference makes the following Recommendations:

- (a) that Governments should extend their patronage to Relief Committees which may be formed, and facilitate as far as possible the accomplishment of their task;
- (b) that in time of war the belligerent nations should proclaim the neutrality of ambulances and military hospitals, and that neutrality should likewise be recognized, fully and absolutely, in respect of official medical personnel, voluntary medical personnel, inhabitants of the country who go to the relief of the wounded, and the wounded themselves;
- (c) that a uniform distinctive sign be recognized for the Medical Corps of all armies, or at least for all persons of the same army belonging to this Service; and, that a uniform flag also be adopted in all countries for ambulances and hospitals.

Source: Resolutions of the Geneva International Conference, 26–29 October 1863. In: Schindler D, Toman J, eds. *The Laws of Armed Conflicts: A Collection of Conventions, Resolutions and Other Documents*. Dordrecht, The Netherlands: Martinus Nijhoff Publishers; 1988: 209–211.

### **CONVENTION FOR THE AMELIORATION OF THE CONDITION OF THE WOUNDED IN ARMIES IN THE FIELD GENEVA, 22 AUGUST 1864**

#### **Article 1**

Ambulances and military hospitals shall be acknowledged to be neuter [sic], and, as such, shall be protected and respected by belligerents so long as any sick or wounded may be therein.

Such neutrality shall cease if the ambulances or hospitals should be held by a military force.

#### **Article 2**

Persons employed in hospitals and ambulances, comprising the staff for superintendence, medical service, administration, transport of wounded, as well as chaplains, shall participate in the benefit of neutrality, whilst so employed, and so long as there remain any wounded to bring in or to succor.

#### **Article 3**

The persons designated in the preceding article may, even after occupation by the enemy, continue to fulfill their duties in the hospital or ambulance which they serve, or may withdraw in order to rejoin the corps to which they belong.

Under such circumstances, when these persons shall cease from their functions, they shall be delivered by the occupying army to the outposts of the enemy.

#### **Article 4**

As the equipment of military hospitals remain subject to the laws of war, persons attached to such hospitals cannot, in withdrawing, carry away any articles but such as are their private property.

Under the same circumstances an ambulance shall, on the contrary, retain its equipment.

#### **Article 5**

Inhabitants of the country who may bring help to the wounded shall be respected, and shall remain free. The generals of the belligerent Powers shall make it their care to inform the inhabitants of the appeal addressed to their humanity, and of the neutrality which will be the consequence of it.

Any wounded man entertained and taken care of in a house shall be considered as a protection thereto. Any

inhabitant who shall have entertained wounded men in their house shall be exempted from the quartering of troops, as well as from a part of the contributions of war which may be imposed.

#### **Article 6**

Wounded or sick soldiers shall be entertained and taken care of, to whatever nation they may belong.

Commanders-in-chief shall have the power to deliver immediately to the outposts of the enemy soldiers who have been wounded in an engagement, when circumstances permit this to be done, and with the consent of both parties.

Those who are recognized, after their wounds are healed, as incapable of serving, shall be sent back to their country.

The others may also be sent back, on condition of not again bearing arms during the continuance of the war.

Evacuations, together with the persons under whose directions they take place, shall be protected by an absolute neutrality.

#### **Article 7**

A distinctive and uniform flag shall be adopted for hospitals, ambulances and evacuations. It must, on every occasion, be accompanied by the national flag. An arm-badge (brassard) shall be allowed for individuals neutralized, but the delivery thereof shall be left to military authority.

The flag and the arm-badge shall bear a red cross on a white ground.

#### **Article 8**

The details of execution of the present convention shall be regulated by the commanders-in-chief of belligerent armies, according to the instructions of their respective governments, and in conformity with the general principles laid down in this convention.

#### **Article 9**

The high contracting Powers have agreed to communicate the present convention to those Governments which have not found it convenient to send plenipotentiaries to the International Conference at Geneva, with an invitation to accede thereto; the protocol is for that purpose left open.

#### **Article 10**

The present convention shall be ratified, and the ratifications shall be exchanged at Berne, in four months, or sooner, if possible.

In faith whereof the respective Plenipotentiaries have signed it and have affixed their seals thereto.

Done at Geneva, the twenty-second day of the month of August of the year one thousand eight hundred and sixty-four.

Source: 1864 Red Cross Convention for the Amelioration of the Condition of the Wounded in Armies in the Field. In: Friedman L, ed. *The Law of War: A Documentary History*. Vol 1. New York: Random House; 1972: 189–191.

### **WORLD MEDICAL ASSOCIATION DECLARATION OF GENEVA**

#### **AT THE TIME OF BEING ADMITTED AS A MEMBER OF THE MEDICAL PROFESSION:**

I SOLEMNLY PLEDGE myself to consecrate my life to the service of humanity;

I WILL GIVE to my teachers the respect and gratitude which is their due;

I WILL PRACTICE my profession with conscience and dignity;

THE HEALTH OF MY PATIENT will be my first consideration;

I WILL RESPECT the secrets which are confided in me, even after the patient has died;

I WILL MAINTAIN by all means in my power, the honor and the noble traditions of the medical profession;

MY COLLEAGUES will be my brothers;

I WILL NOT PERMIT considerations of religion, nationality, race, party politics or social standing to intervene between my duty and my patient;

I WILL MAINTAIN the utmost respect for human life from its beginning even under threat and I will not use my medical knowledge contrary to the laws of humanity;

I MAKE THESE PROMISES solemnly, freely and upon my honor.

Source: The World Medical Association. *Declaration of Geneva*. Adopted by the 2nd General Assembly of the World Medical Association, Geneva, Switzerland, September 1948, amended by the 22nd World Medical Assembly, Sydney, Australia, August 1968, and the 35th World Medical Assembly, Venice, Italy, October 1983. In: *The World Medical Association Handbook of Declarations*. Ferney-Voltaire, France: The World Medical Association; 1993: Section 17.A.

**WORLD MEDICAL ASSOCIATION  
INTERNATIONAL CODE  
OF  
MEDICAL ETHICS  
DUTIES OF PHYSICIANS IN GENERAL**

A PHYSICIAN SHALL always maintain the highest standards of professional conduct.

A PHYSICIAN SHALL not permit motives of profit to influence the free and independent exercise of professional judgment on behalf of patients.

A PHYSICIAN SHALL, in all types of medical practice, be dedicated to providing competent medical service in full technical and moral independence, with compassion and respect for human dignity.

A PHYSICIAN SHALL deal honestly with patients and colleagues, and strive to expose those physicians deficient in character or competence, or who engage in fraud or deception.

The following practices are deemed to be unethical conduct:

- (a) Self advertising by physicians, unless permitted by the laws of the country and the Code of Ethics of the National Medical Association.
- (b) Paying or receiving any fee or any other consideration solely to procure the referral of a patient or for prescribing or referring a patient to any source.

A PHYSICIAN SHALL respect the rights of patients, of colleagues, and of other health professionals, and shall safeguard patient confidences.

A PHYSICIAN SHALL act only in the patient's interest when providing medical care which might have the effect of weakening the physical and mental condition of the patient.

A PHYSICIAN SHALL use great caution in divulging discoveries or new techniques or treatment through non-professional channels.

A PHYSICIAN SHALL certify only that which he has personally verified.

**DUTIES OF PHYSICIANS TO THE SICK**

A PHYSICIAN SHALL always bear in mind the obligation of preserving human life.

A PHYSICIAN SHALL owe his patients complete loyalty and all the resources of his science. Whenever an examination or treatment is beyond the physician's capacity he should summon another physician who has the necessary ability.

A PHYSICIAN SHALL preserve absolute confidentiality on all he knows about his patient even after the patient has died.

A PHYSICIAN SHALL give emergency care as a humanitarian duty unless he is assured that others are willing and able to give such care.

**DUTIES OF PHYSICIANS TO EACH OTHER**

A PHYSICIAN SHALL behave towards his colleagues as he would have them behave towards him.

A PHYSICIAN SHALL NOT entice patients from his colleagues.

A PHYSICIAN SHALL observe the principles of the "Declaration of Geneva" approved by the World Medical Association.

Source: The World Medical Association. *International Code of Medical Ethics*. Adopted by the 3rd General Assembly of the World Medical Association, London, England, October 1949, amended by the 22nd World Medical Assembly, Sydney Australia, August 1968, and the 35th World Medical Assembly, Venice, Italy, October 1983. In: *The World Medical Association Handbook of Declarations*. Ferney-Voltaire, France: The World Medical Association; 1993: Section 17.A.



**WORLD MEDICAL ASSOCIATION  
REGULATIONS IN TIME OF ARMED CONFLICT**

1. Medical Ethics in time of armed conflict is identical to medical ethics in time of peace, as established in the International Code of Medical Ethics of the World Medical Association. The primary obligation of the physician is his professional duty; in performing his professional duty, the physician's supreme guide is his conscience.
2. The primary task of the medical profession is to preserve health and save life. Hence it is deemed unethical for physicians to:
  - (a) Give advice or perform prophylactic, diagnostic or therapeutic procedures that are not justifiable in the patient's interest.
  - (b) Weaken the physical or mental strength of a human being without therapeutic justification.
  - (c) Employ scientific knowledge to imperil health or destroy life.
3. Human experimentation in time of armed conflict is governed by the same code as in time of peace; it is strictly forbidden on all persons deprived of their liberty, especially civilian and military prisoners and the population of occupied countries.
4. In emergencies, the physician must always give the required care impartially and without consideration of sex, race, nationality, religion, political affiliation or any other similar criterion. Such medical assistance must be continued for as long as necessary and practicable.
5. Medical confidentiality must be preserved by the physician in the practice of his profession.
6. Privileges and facilities afforded the physician must never be used for other than professional purposes.

Source: The World Medical Association. *Regulations in Time of Armed Conflict*. Adopted by the 10th World Medical Assembly, Havana, Cuba, October 1956, edited by the 11th World Medical Assembly, Istanbul, Turkey, October 1957, and amended by the 35th World Medical Assembly, Venice, Italy, October 1983. In: *The World Medical Association Handbook of Declarations*. Ferney-Voltaire, France: The World Medical Association; 1993: Section 17.50.

**WORLD MEDICAL ASSOCIATION  
RULES GOVERNING THE CARE OF SICK AND WOUNDED,  
PARTICULARLY IN TIME OF CONFLICT**

A.

1. Under all circumstances, every person, military or civilian must receive promptly the care he needs without consideration of sex, race, nationality, religion, political affiliation or any other similar criterion.
2. Any procedure detrimental to the health, physical or mental integrity of a human being is forbidden unless therapeutically justifiable.

B.

1. In emergencies, physicians and associated medical personnel are required to render immediate service to the best of their ability. No distinction shall be made between patients except those justified by medical urgency.
2. The members of medical and auxiliary professions must be granted the protection needed to carry out their professional activities freely. The assistance necessary should be given to them in fulfilling their responsibilities. Free passage should be granted whenever their assistance is required. They should be afforded complete professional independence.
3. The fulfillment of medical duties and responsibilities shall in no circumstances be considered an offence. The physician must never be prosecuted for observing professional confidentiality.
4. In fulfilling their professional duties, the medical and auxiliary professions will be identified by the distinctive emblem of a red serpent and staff on a white field. The use of this emblem is governed by special regulation.

Source: The World Medical Association. *Rules Governing the Care of Sick and Wounded, Particularly in Time of Conflict*. Adopted by the 10th World Medical Assembly, Havana, Cuba, October 1956, edited by the 11th World Medical Assembly, Istanbul, Turkey, October 1957, and amended by the 35th World Medical Assembly, Venice, Italy, October 1983. In: *The World Medical Association Handbook of Declarations*. Ferney-Voltaire, France: The World Medical Association; 1993: Section 17.50.

## WORLD MEDICAL ASSOCIATION DECLARATION OF HELSINKI

### INTRODUCTION

It is the mission of the physician to safeguard the health of the people. His or her knowledge and conscience are dedicated to the fulfillment of this mission.

The Declaration of Geneva of the World Medical Association binds the physician with the words, "The health of my patient will be my first consideration," and the International Code of Medical Ethics declares that, "A physician shall act only in the patient's interest when providing medical care which might have the effect of weakening the physical and mental condition of the patient."

- The purpose of biomedical research involving human subjects must be to improve diagnostic, therapeutic and prophylactic procedures and the understanding of the etiology and pathogenesis of disease.
- In current medical practice most diagnostic, therapeutic or prophylactic procedures involve hazards. This applies especially to biomedical research.
- Medical progress is based on research which ultimately must rest in part on experimentation involving human subjects.
- In the field of biomedical research a fundamental distinction must be recognized between medical research in which the aim is essentially diagnostic or therapeutic for a patient, and medical research, the essential object of which is purely scientific and without implying direct diagnostic or therapeutic value to the person subjected to the research.
- Special caution must be exercised in the conduct of research which may affect the environment, and the welfare of animals used for research must be respected.
- Because it is essential that the results of laboratory experiments be applied to human beings to further scientific knowledge and to help suffering humanity, the World Medical Association has prepared the following recommendations as a guide to every physician in biomedical research involving human subjects. They should be kept under review in the future. It must be stressed that the standards as drafted are only a guide to physicians all over the world. Physicians are not relieved from criminal, civil and ethical responsibilities.

### I. BASIC PRINCIPLES

1. Biomedical research involving human subjects must conform to generally accepted scientific principles and should be based on adequately performed laboratory and animal experimentation and on a thorough knowledge of the scientific literature.
2. The design and performance of each experimental procedure involving human subjects should be clearly formulated in an experimental protocol which should be transmitted for consideration, comment and guidance to a specially appointed committee independent of the investigator and the sponsor provided that this independent committee is in conformity with the laws and regulations of the country in which the research experiment is performed.
3. Biomedical research involving human subjects should be conducted only by scientifically qualified persons and under the supervision of a clinically competent medical person. The responsibility for the human subject must always rest with a medically qualified person and never rest on the subject of the research, even though the subject has given his or her consent.
4. Biomedical research involving human subjects cannot legitimately be carried out unless the importance of the objective is in proportion to the inherent risk to the subject.
5. Every biomedical research project involving human subjects should be preceded by careful assessment of predictable risks in comparison with foreseeable benefits to the subject or to others. Concern for the interests of the subject must always prevail over the interests of science and society.
6. The right of the research subject to safeguard his or her integrity must always be respected. Every precaution should be taken to respect the privacy of the subject and to minimize the impact of the study on the subject's physical and mental integrity and on the personality of the subject.
7. Physicians should abstain from engaging in research projects involving human subjects unless they are satisfied that the hazards involved are believed to be predictable. Physicians should cease any investigation if the hazards are found to outweigh the potential benefits.
8. In publication of the results of his or her research, the physician is obliged to preserve the accuracy of the results. Reports of experimentation not in accordance with the principles laid down in this Declaration should not be accepted for publication.

9. In any research on human beings, each potential subject must be adequately informed of the aims, methods, anticipated benefits and potential hazards of the study and the discomfort it may entail. He or she should be informed that he or she is at liberty to abstain from participation in the study and that he or she is free to withdraw his or her consent to participation at any time. The physician should then obtain the subject's freely-given informed consent, preferably in writing.
10. When obtaining informed consent for the research project the physician should be particularly cautious if the subject is in a dependent relationship to him or her or may consent under duress. In that case the informed consent should be obtained by a physician who is not engaged in the investigation and who is completely independent of this official relationship.
11. In case of legal incompetence, informed consent should be obtained from the legal guardian in accordance with national legislation. Where physical or mental incapacity makes it impossible to obtain informed consent, or when the subject is a minor, permission from the responsible relative replaces that of the subject in accordance with national legislation.  
Whenever the minor child is in fact able to give a consent, the minor's consent must be obtained in addition to the consent of the minor's legal guardian.
12. The research protocol should always contain a statement of the ethical considerations involved and should indicate that the principles enunciated in the present Declaration are complied with.

## **II. MEDICAL RESEARCH COMBINED WITH PROFESSIONAL CARE (Clinical research)**

1. In the treatment of the sick person, the physician must be free to use a new diagnostic and therapeutic measure, if in his or her judgment it offers hope of saving life, reestablishing health or alleviating suffering.
2. The potential benefits, hazards and discomfort of a new method should be weighed against the advantages of the best current diagnostic and therapeutic methods.
3. In any medical study, every patient—including those of a control group, if any—should be assured of the best proven diagnostic and therapeutic method.
4. The refusal of the patient to participate in a study must never interfere with the physician-patient relationship.
5. If the physician considers it essential not to obtain informed consent, the specific reasons for this proposal should be stated in the experimental protocol for transmission to the independent committee.
6. The physician can combine medical research with professional care, the objective being the acquisition of new medical knowledge, only to the extent that medical research is justified by its potential diagnostic or therapeutic value for the patient.

## **III. NON-THERAPEUTIC BIOMEDICAL RESEARCH INVOLVING HUMAN SUBJECTS**

(Non-clinical biomedical research)

1. In the purely scientific application of medical research carried out on a human being, it is the duty of the physician to remain the protector of the life and health of that person on whom biomedical research is being carried out.
2. The subjects should be volunteers—either healthy persons or patients for whom the experimental design is not related to the patient's illness.
3. The investigator or the investigating team should discontinue the research if in his/her or their judgment it may, if continued, be harmful to the individual.
4. In research on man, the interest of science and society should never take precedence over considerations related to the well-being of the subject.

Source: The World Medical Association. *Declaration of Helsinki: Recommendations Guiding Physicians in Biomedical Research Involving Human Subjects*. Adopted by the 18th World Medical Assembly, Helsinki, Finland, June 1964, and amended by the 29th World Medical Assembly, Tokyo, Japan, October 1975, the 35th World Medical Assembly, Venice, Italy, October 1983, and the 41st World Medical Assembly, Hong Kong, September 1989. In: *The World Medical Association Handbook of Declarations*. Ferney-Voltaire, France: The World Medical Association; 1993: Section 17.C.

**WORLD MEDICAL ASSOCIATION  
DECLARATION OF TOKYO  
PREAMBLE**

It is the privilege of the medical doctor to practice medicine in the service of humanity, to preserve and restore bodily and mental health without distinction as to persons, to comfort and to ease the suffering of his or her patients. The utmost respect for human life is to be maintained even under threat, and no use made of any medical knowledge contrary to the laws of humanity.

For the purpose of this Declaration, torture is defined as the deliberate, systematic or wanton infliction of physical or mental suffering by one or more persons acting alone or on the orders of any authority, to force another person to yield information, to make a confession, or for any other reason.

**DECLARATION**

1. The doctor shall not countenance, condone or participate in the practice of torture or other forms of cruel, inhuman or degrading procedures, whatever the offence of which the victim of such procedures is suspected, accused or guilty, and whatever the victim's beliefs or motives, and in all situations, including armed conflict and civil strife.
2. The doctor shall not provide any premises, instruments, substances or knowledge to facilitate the practice of torture or other forms of cruel, inhuman or degrading treatment or to diminish the ability of the victim to resist such treatment.
3. The doctor shall not be present during any procedure during which torture or other forms of cruel, inhuman or degrading treatment is used or threatened.
4. A doctor must have complete clinical independence in deciding upon the care of a person for whom he or she is medically responsible. The doctor's fundamental role is to alleviate the distress of his or her fellow men, and no motive whether personal, collective or political shall prevail against this higher purpose.
5. Where a prisoner refuses nourishment and is considered by the doctor as capable of forming an unimpaired and rational judgment concerning the consequences of such a voluntary refusal of nourishment, he or she shall not be fed artificially. The decision as to the capacity of the prisoner to form such a judgment should be confirmed by at least one other independent doctor. The consequences of the refusal of nourishment shall be explained by the doctor to the prisoner.
6. The World Medical Association will support, and should encourage the international community, the national medical associations and fellow doctors to support the doctor and his or her family in the face of threats or reprisals resulting from a refusal to condone the use of torture or other forms of cruel, inhuman or degrading treatment.

Source: The World Medical Association. *Declaration of Tokyo: Guidelines for Medical Doctors Concerning Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment in Relation to Detention and Imprisonment*. Adopted by the 29th World Medical Assembly, Tokyo, Japan, October 1975. In: *The World Medical Association Handbook of Declarations*. Ferney-Voltaire, France: The World Medical Association; 1993: Section 17.F.

**WORLD MEDICAL ASSOCIATION  
STATEMENT ON PHYSICIAN-ASSISTED SUICIDE**

Instances of physician-assisted suicide have recently become the focus of public attention. These instances involve the use of a machine, invented by the physician who instructs the individual in its use. The individual thereby is assisted in committing suicide. In other instances the physician has provided medication to the individual with information as to the amount of dosage that would be lethal. The individual is thereby provided with the means for committing suicide. To be sure, the individuals involved were seriously ill, perhaps even terminally ill, and were wracked with pain. Furthermore, the individuals were apparently competent and made their own decision to commit suicide. Patients contemplating suicide are frequently expressing the depression that accompanies terminal illness.

Physician-assisted suicide, like euthanasia, is unethical and must be condemned by the medical profession. Where the assistance of the physician is intentionally and deliberately directed at enabling an individual to end his or her own life, the physician acts unethically. However the right to decline medical treatment is a basic right of the patient and the physician does not act unethically even if respecting such a wish results in the death of the patient.

Source: The World Medical Association. *Statement on Physician-Assisted Suicide*. Adopted by the 44th World Medical Assembly, Marbella, Spain, September 1992. In: *The World Medical Association Handbook of Declarations*. Ferney-Voltaire, France: The World Medical Association; 1993: Section 17.PP.



**1978 RED CROSS FUNDAMENTAL RULES  
OF INTERNATIONAL HUMANITARIAN LAW  
APPLICABLE IN ARMED CONFLICTS**

1. Persons *hors de combat* and those who do not take a direct part in hostilities are entitled to respect for their lives and physical and moral integrity. They shall in all circumstances be protected and treated humanely without any adverse distinction.
2. It is forbidden to kill or injure an enemy who surrenders or who is *hors de combat*.
3. The wounded and sick shall be collected and cared for by the party to the conflict which has them in its power. Protection also covers medical personnel, establishments, transports and *materiél*. The emblem of the red cross (red crescent, red lion and sun) is the sign of such protection and must be respected.
4. Captured combatants and civilians under the authority of an adverse party are entitled to respect for their lives, dignity, personal rights and convictions. They shall be protected against all acts of violence and reprisals. They shall have the right to correspond with their families and to receive relief.
5. Everyone shall be entitled to benefit from fundamental judicial guarantees. No one shall be held responsible for an act he has not committed. No one shall be subjected to physical or mental torture, corporal punishment or cruel or degrading treatment.
6. Parties to a conflict and members of their armed forces do not have an unlimited choice of methods and means of warfare. It is prohibited to employ weapons or methods of warfare of a nature to cause unnecessary losses or excessive suffering.
7. Parties to a conflict shall at all times distinguish between the civilian population and combatants in order to spare civilian population and property. Neither the civilian population as such nor civilian persons shall be the object of attack. Attacks shall be directed solely against military objectives.

Source: 1978 Red Cross Fundamental Rules of International Humanitarian Law Applicable in Armed Conflicts. In: Roberts A, Guelff R, eds. *Documents on the Laws of War*. 2nd ed. Oxford: Clarendon Press; 1989: 470.



# Chapter 24

## MILITARY MEDICINE IN HUMANITARIAN MISSIONS

JOAN T. ZAJTCHUK, MD, SPEC IN HSA \*

---

### INTRODUCTION

#### THE LEGAL AND MORAL BASIS FOR HUMANITARIAN ASSISTANCE

#### THE BEGINNINGS OF US HUMANITARIAN ASSISTANCE (1900–1945)

#### US HUMANITARIAN ASSISTANCE IN NATION BUILDING/ COUNTERINSURGENCY PROGRAMS (1945–1975)

##### Nation Building After World War II

##### The Emergence of Counterinsurgency Policies

##### The Beginnings of Military Civic Action Doctrine

##### Southeast Asia and Vietnam: Implementation of Civic Action Programs

#### THE CHANGING CONCEPT OF NATION BUILDING (1975–2000)

##### The Aftermath of the Vietnam War

##### Nation Building in Central America: The Background

##### The Beginning of the DoD Humanitarian Mission in Central America

##### Formalizing the Role of the Department of Defense

##### Honduras: Military Medicine in Civic Action Programs—The SOUTHCOM Model

##### El Salvador: Military Medicine in Security Assistance Training Programs

##### Project Coordination and Accountability

#### THE IMPACT OF HUMANITARIAN ASSISTANCE IN CENTRAL AMERICA

##### The Benefits of Humanitarian Assistance for Host Countries

##### Some Problems Associated With Humanitarian Assistance

#### THE PRESENT AND FUTURE OF NATION BUILDING (2001)

### CONCLUSION

\*Colonel (Retired), Medical Corps, United States Army; formerly, Consultant to the Army Surgeon General and the Assistant Secretary of Defense for Health Affairs; Hospital Commander, Joint Task Force Bravo, Medical Element, Honduras and Command Surgeon, Honduras; currently, Professor of Otolaryngology and Bronchoesophagology, Center for Advanced Technology and International Health, Rush-Presbyterian-St. Luke's Medical Center, 600 South Paulina, Suite 524, Chicago, Illinois 60612-3832



H. Charles McBarron

*Operation New Life*

Guam, 1975

Operation New Life occurred during the spring and summer of 1975. With the collapse of South Vietnam, more than 130,000 Southeast Asian refugees were evacuated to the United States. Over 90,000 received some type of medical care.... In the foreground, as concerned relatives look on, an Army nurse checks an injured Vietnamese. The scene is typical of many long evenings in tents set up as emergency medical stations on Guam, the first stop for the refugees.

Caption and art: Courtesy of Army Art Collection, US Army Center of Military History, Washington, DC. Available at: [http://history.amedd.army.mil/art/vietnam\\_files/guam.jpg](http://history.amedd.army.mil/art/vietnam_files/guam.jpg).



## INTRODUCTION

The US military has a long tradition of providing emergency humanitarian relief after armed confrontation, natural disasters, and during deployments for training around the world. The use of the military for humanitarian assistance has frequently been controversial,<sup>1</sup> and the effectiveness of some of the previous missions has been justifiably questioned.<sup>2-4</sup> However, many policymakers believe that to further national interests the US military should be involved in humanitarian assistance in the post-Cold-War period.<sup>5,6</sup> Assisting populations affected by disaster of natural or human origin is important for the maintenance of peace, security, and stability in today's world. According to US national security policy, emergency humanitarian assistance will be an essential capability of US forces in the 21st century.<sup>7,8</sup>

Prior to the establishment in 1984 of the Office for Humanitarian Assistance/Civic Action in the Department of Defense (DoD), many programs, including medical efforts, had already been widely funded for a number of years. It has only been since the 1990s, however, that the term "humanitarian assistance" applied to medical civic action missions in the medical departments of the military service branches. At this time, the US Congress authorized and funded DoD humanitarian assistance/civic action programs that allow all military branches to provide humanitarian assistance in conjunction with authorized military exercises throughout the world and target primary healthcare needs. The program also provides funding to distribute excess medical equipment and supplies to other nations if requested. These various programs include long-standing foreign military assistance programs such as the Security Assistance Program that funds teams of US military personnel to provide training to a host nation (this was done in El Salvador by the Army Medical Department with the medical mobile training teams [MTTs]). This assistance must be requested by the host nation and is part of the foreign military sales (FMS) program. The host nation is requesting training in lieu of military hardware procurement. The Latin American Cooperative (LATAM COOP) Fund supports the military medical Subject Matter Expert Exchange (SMEE) program for military medical personnel exchanges and training in the United States and in the host nation (Exhibit 24-1). Both of these assistance programs were only recently utilized by the Army Medical Department in Latin America. The military medical programs include medical readiness train-

ing exercises (MEDRETEs); deployment for training exercises (DTEs) for active duty, reserve, and national guard units; and programs for Special Forces medics.

Despite the plethora of assistance programs, the primary focus of military medicine remains that of supporting military deployments and combat operations. When the military does get involved in humanitarian assistance, a critical determinant of its military role is the mission statement, which elaborates the guidelines and constraints for the military's actions in a given operation. The mission originates from the executive branch of government and includes political objectives. Whereas most relief organizations strive to be neutral, military forces are directed by government policy. Therefore, the military is easily perceived as having interests other than solely humanitarian relief, particularly in situations that involve armed conflict. This may result in an adversarial relationship that interferes with the ability of both the military and various relief organizations to provide, coordinate, and complement medical assistance programs.

Some critics have cautioned that for the military to embrace humanitarian assistance as a major mission is unrealistic and inappropriate.<sup>6,9</sup> There are

### EXHIBIT 24-1

#### SUBJECT MATTER EXPERT EXCHANGE PROGRAM

In 1988, the first Subject Matter Expert Exchange Program, using Army Medical Department personnel, was begun in the Southern Command (SOUTHCOM) and included the host countries of Chile, Guatemala, and Colombia. Although the scope of the program was, and continues to be, small, it demonstrates the growth of related programs benefiting the host nation. The exchanges, on topics such as disaster relief, preventive medicine, field hygiene, trauma evacuation, and healthcare administration, were of mutual benefit to both the United States and the host countries and also enriched US understanding of host-country military healthcare systems. These diverse programs demonstrate the opportunities provided at the individual training level, at the host-country medical level, and also within the host-country military force level.

several reasons for the continuing controversy regarding the appropriateness of associated humanitarian missions for the DoD during deployments. First, there has been the lack of a benefit outcomes analysis of previous DoD programs. Second, there is the perception by other US governmental agencies (such as the Department of State, the United States Agency for International Development, and the Peace Corps) of potential conflicting interagency roles. These same agencies directed similar criticism toward military civic action programs during the Vietnam War. (Because of this criticism, in the immediate post-Vietnam era, civic action programs of any nature were rarely discussed at the policy level and generally were conducted only by Special Operations forces.) And finally, there has been the lack of a uniform, coordinated policy and execution for these medical programs within the DoD. However, the extensive military medical civic action programs

in the Southern Command (SOUTHCOM), especially in Honduras, have been instrumental in providing an impetus for the development of potential models and policy directives over the last several years.

US forces are almost certain to be called on again to assist in international humanitarian relief efforts. Historical precedent, the extensive number of conflicts in the post-Cold-War world, and military policy all strongly suggest this. There is as yet little strategic planning that determines when and how the military should be used in their humanitarian assistance roles. It is my professional opinion, based on my military experience providing humanitarian assistance, that medical readiness training exercises (MEDRETEs) have proved successful in providing humanitarian and civic assistance in Latin America countries and can serve as a model as the United States military deploys to medically underserved areas around the world.

### THE LEGAL AND MORAL BASIS FOR HUMANITARIAN ASSISTANCE

There are criteria that recognize and build on the body of international humanitarian<sup>10</sup> and human rights law that governs the conduct of nations toward civilian populations in international and internal armed conflicts. These criteria recognize that certain principles<sup>11</sup> must govern all humanitarian assistance, including:

- **Humanity:** Human suffering should be addressed wherever it is found. The dignity and rights of all victims must be respected and protected;
- **Impartiality:** Humanitarian assistance should be provided without discriminating as to ethnic origin, gender, nationality, political opinions, race, or religion. Relief of the suffering of individuals must be guided solely by their needs and priority must be given to the most urgent cases of distress;
- **Neutrality:** Humanitarian assistance should be provided without engaging in hostilities or taking sides in controversies of a political, religious, or ideological nature;
- **Independence:** The independence of action by humanitarian agencies should not be infringed upon or unduly influenced by political, military, or other interests; and
- **Empowerment:** Humanitarian assistance should strive to revitalize local institutions, enabling them to provide for the needs of the affected community. Humanitarian assistance should provide a solid first step on

the continuum of emergency relief, rehabilitation, reconstruction, and development.

Peacekeeping operations by US military forces may cause problems for humanitarian organizations. Rather than providing protection for workers within these organizations, by their concurrent presence within the host country, these operations may actually place their civilian personnel at greater risk. To label the military's efforts as peacekeeping or "operations other than war" also creates false assurances about the safety of these missions. Such a label is misleading because it suggests risk- and casualty-free operations. By acknowledging that military operations are the primary end (securing and insuring peace), the role of the associated humanitarian activity becomes the pursuit of national policy by other means. If policy makers cling too tightly to the "humanitarian" label, while ignoring the political realities of humanitarian intervention and implementation, military medical personnel in their daily operations, often pragmatically develop activities that may ultimately require a change in policy and the law. Military medical personnel are historically removed from any policy-making decisions because the Department of State has the primary role for humanitarian assistance activities. When military health workers face human suffering in host countries, they understand that their training combined with minimal resources can meet some of these basic human needs through primary care services (education, immunizations, and pri-

mary care diagnosis and treatment). Deployments to underdeveloped countries, as was true in Korea, Honduras, El Salvador, and Somalia, provide the impetus to “rethink” national policy. In deployment environments, military personnel can confuse the purely military end with that of pursuing national policy by other means (humanitarian assistance activities).

To preclude this confusion from occurring, military personnel should always act to support civilian or other governmental agency efforts, because they alone will remain responsible for the overall strategy and for the final outcome. If the exigencies of military missions are allowed to predominate, however, one of two things will happen: (1) the military will leave too quickly and not have a lasting effect on humanitarian assistance programs; or (2) the military will stay too long and take on the task of nation building. It is my contention that the proper role of the military should be to support the mission of the US Department of State and move from a “Band-Aid” approach of humanitarianism toward strengthening the long-term nation-building roles of the Department of State and other non-governmental agencies. After relative stability has been achieved in military deployments on a local country level, the military should remove itself from the task of nation building. However, to simply say that the military only does short-term humanitarian operations and not nation building is to ignore the reality of the activities in between those two tasks, as well as to ignore the effect that these humanitarian assistance programs have on host-country nationals.

This chapter will describe the evolution of military medical humanitarian assistance in the 20th

century. Although the US military also provides disaster relief within its own borders, as needed, this chapter will predominantly focus its attention on those activities that take place outside the United States. Several examples will be provided to illustrate the expanding roles of military medicine in nation building and the associated controversies and ethical dilemmas. The development of the role that military medicine played in Vietnam will be described, as well as medical assistance/civic action programs in Honduras and El Salvador. These latter two are instances of a successful military medical model that can be used during long-term troop deployments abroad. Use of this model will help avoid many of the problems described in the next chapter in this textbook (Chapter 25, *Military Humanitarian Assistance: The Pitfalls and Promise of Good Intentions*).

In summary, during the 20th century, the US has increasingly involved itself in foreign aid and humanitarian assistance on a worldwide basis. Because of congressional oversight, a variety of criteria were used over the years in awarding this aid. Economic and military aid packages were withheld or modified if certain of these criteria were not met by the host nation. The major criteria rested upon the support shown to the interests of the United States. Most notably this included the host nation’s voting record in the United Nations, support of US industry, import/export policy, and basing rights for US military units. When the historical record of US foreign aid policy is examined, it appears clear that these humanitarian assistance programs are motivated by political ends. This was certainly the case in the early years of these programs.

### **THE BEGINNINGS OF US HUMANITARIAN ASSISTANCE (1900–1945)**

President Wilson used food, in the form of disaster relief, in his efforts to stop the spread of civil unrest and Bolshevism during World War I and during the Russian famine of 1921 that followed the end of the war. Food relief was criticized as Wilson’s attempt to hide his purely counterrevolutionary action<sup>12(p81)</sup> through the establishment of this relief program, named the American Relief Administration. The program was managed by civilians and was designed to promote and encourage American ideology. Although the American Relief Administration was managed by a civilian organization, soldiers served within it.

Within the context of the American Relief Administration, the US Army and its Medical Corps was directed to undertake three missions in what was

later called nation building. The duty was hazardous because of the hostile political climate in the deployed areas. The first of these missions involved providing disaster relief to the refugees of Armenia who were under threat of a Russian invasion. In 1919, active duty Army medical officers established a joint American-Armenian hospital to care for 4,000 refugees. Over a period of a year, significant improvements were made in healthcare facilities, typhoid and smallpox vaccination programs, and in sanitary practices.

The second nation-building mission, the American-Polish Relief Expedition (1919–1920), was developed for the elimination of typhus and the modernization of the Polish healthcare system.<sup>13</sup> The US military contingent consisted of 500 enlisted men

and 12 medical officers who remained with the force for 2 years. Some equipment was donated by the US Army, but most was bought by the Polish government and consisted of surplus supplies from the American Expeditionary Force (AEF). American officers organized logistical support, administration, and educational campaigns for the control of typhus and the institution of routine sanitary measures throughout the countryside. All aspects of the reorganization of the Polish healthcare system were coordinated with the Polish Ministry of Health and civilian officials. Unfortunately, the invasion of Poland by Russia essentially negated the efforts of the typhus quarantine. Most US personnel left the relief force because of the invasion. Quarantines became ineffectual due to the refugee problem and a subsequent decrease in sanitary measures. Personnel losses and logistical problems further hampered the American-Polish Relief Expedition. Any long-lasting results in preventive medicine and epidemic control were affected by the war. The mission was considered a failure in a report by the Inspector General (IG), US Army,<sup>13</sup> in which the IG severely criticized the coordination effort of the Ministry of Health, stating that the Polish Army had the ability to do a better job.

The third of these missions under the American Relief Administration was set up to provide disaster relief to Russia between 1921 and 1923.<sup>14</sup> This long-term relief effort included \$20 million in appropriated funds for famine relief and \$4 million in medical supplies from the War Department, Navy, and Public Health Service. Six Army officers in leadership positions were in charge of the medical effort. Army materials, under congressional approval (with additional purchases and grants by the American Red Cross), were an essential in the distribution effort of medical supplies and equipment. Primary preventive health programs such as vaccination against typhoid, paratyphoid, smallpox, and diphtheria were instituted as well as stricter sanitary measures.

During and after World War I, the Army broadly called this kind of assistance “disaster relief” and

the proper connotation of the term humanitarian assistance was applied in as pure a form as possible. The military leadership of the United States understood the potential value of this aid and used it as a tool of foreign policy.<sup>15</sup> Nonetheless, the concept of disaster relief or humanitarian assistance to be provided by the US Army in the case of national disasters fell into disrepute as the newly created Public Health Service, the National Guard, and the American Red Cross increasingly took on these responsibilities. In the period between the world wars, the Army continued to provide medical relief operations primarily because it was better equipped to logistically support these missions. Controversy arose about funding of equipment and supplies provided by the Army to the Red Cross. By 1927, many in the Army leadership resented the fact that their budget provided for civil assistance when their rightful job was defending the nation. By 1937, several relief organizations, to include the Red Cross, became politically powerful and eventually supplanted the medically related disaster relief roles of the Army. In 1944, the role of the Army Medical Department in national health emergencies was legally designated to the Public Health Service.

These three examples from the World-War-I era illustrate the intentions and goals of a US-directed humanitarian role for medicine in foreign policy. Admittedly, these efforts were the first steps toward expanded missions after World War II. Can they be used as a model for success or failure of the programs or was this only the beginning of the quandary involving the US government in foreign aid and humanitarian assistance? This chapter will explore this question and suggest an answer.

The next phase of US military involvement in humanitarian assistance understandably began at the end of World War II when America emerged as a world leader. This phase ended with the fall of South Vietnam in 1975 to communist insurgents. In the intervening 30 years, however, military personnel had begun to learn a great deal about what worked, and what did not, in humanitarian assistance programs.

## **US HUMANITARIAN ASSISTANCE IN NATION BUILDING/COUNTERINSURGENCY PROGRAMS (1945–1975)**

### **Nation Building After World War II**

The official end of World War II saw the end of global armed conflict between sovereign nations, the beginning of the Cold War, and the emergence of global powers confronting one another in more

limited geographic areas (such as Korea) as well as in numerous insurgency movements around the world. In this immediate postwar environment, other US government agencies provided for foreign and domestic disaster relief with few roles given to the Army. Even the Surplus Property Law provided



the president, through a civilian agency, the means to transfer federal property to state or local governments. This law officially reduced the influence of the Army to the distribution of surplus property. By the early 1950s, most national disaster relief was structured by law and administered under the Office of Emergency Planning. Only a few national disasters such as the periodic floods along the Rio Grande River and the 1964 earthquake in Alaska demanded the services of the Army. In these instances, the ability to provide helicopter evacuation and the rapid deployment of field hospital equipment and personnel made Army medical help essential.<sup>16</sup>

Reliance on civilian agencies in the early 1970s replaced almost all utilization of the Army Medical Department in national disasters. Although the Army involvement in national disaster relief declined in the 1960s and 1970s, its role in foreign disaster relief became more prominent. During this Cold War period, the US Congress discussed and developed an elaborate system of foreign aid, centered around counterinsurgency policies and programs.

### **The Emergence of Counterinsurgency Policies**

US counterinsurgency policies began during the early Cold War period with the study of the wars in Malaysia, the Philippines, and Burma between 1948 and 1961.<sup>17(p21)</sup> The concept of counterinsurgency was first tested by Ramon Magsaysay in response to the communist-supported Huk insurgency in the Philippines after World War II. Magsaysay recognized the benefits of military civic action and provided the model by which all subsequent programs were fashioned. His goal was to inspire his soldiers to be good-will ambassadors of the government for the people while still performing their primary role in killing the insurgents. He instructed his soldiers to assist the civilian population in meeting their basic needs such as medical care, hygiene, and field sanitation. Simple engineering projects to improve rural living were also undertaken to advance the concept of nation building by military forces.

Magsaysay's military civic action program was supported within the US Army with the establishment of a new Civil Affairs Office positioned under the Secretary of Defense. The original idea for civic action and the US Army's Civil Affairs Office is credited to General Lansdale, an American advisor to Magsaysay. Troop instruction, psychological warfare, public information, and civic action roles were carried out by special advisors to field commanders. The primary doctrine of the civil affairs mission was to gain the confidence and trust of the

civilian population in order to combat the communist influence in the countryside. Each soldier was responsible for implementing the principles of civic action. The association of civic action, civil affairs, and counterinsurgency doctrine flourished and was developed both in Southeast Asia and Latin America as a direct consequence of the potential communist inroads in those regions.

### **The Beginnings of Military Civic Action Doctrine**

In 1958, because of these concerns about the rise of communism in these areas, President Eisenhower appointed a committee, chaired by William H. Draper, Jr., to study the Military Assistance Program (MAP). The 1959 Draper Committee Report recommended that serious consideration be given to the use of indigenous forces in social and economic development.<sup>18</sup> The report also provided recommendations for more integrated economic and military assistance packages under the Mutual Security Program.<sup>19</sup> Numerous examples of country assistance were cited in this report to include a very effective program in postwar Korea (Exhibit 24-2) that had been established in November 1953.

Influenced by the success of the program in rebuilding Korea, a mandatory civic-assistance program was funded by the United States with Security Assistance Program funds in Latin America and Southeast Asia. Civic action programs were designated to be both the tools in nation building and requirements of the Military Assistance Program. In its final report, the Draper Committee reaffirmed the philosophy that the United States should lead the underdeveloped countries of the world toward trade equality in a free-world community.<sup>19</sup> The report specifically cautioned against evaluating aid issues with the narrow tunnel vision of Cold War strategies. The Department of Defense approved the recommendation for expansion of the civic action programs in underdeveloped countries in 1960. This expansion became the basis for the formation of US Army military civic action doctrine.<sup>20(pp67-79)</sup>

By the time of the release of the Draper Committee's Report, the US Army had military assistance administrators encourage the use and training of military units in allied countries for public works and economic development activities such as was done in Korea.<sup>20(p69)</sup> In June 1960, the Department of the Army alerted its military assistance personnel abroad that civic action training teams were available upon request to help formulate specific programs for designated countries. President Kennedy, in a National Security Action Memorandum

## EXHIBIT 24-2

### ARMED FORCES ASSISTANCE TO KOREA

The Armed Forces Assistance to Korea program was formally established in November 1953. The program began informally as an outpouring of assistance by US military personnel in response to the war's refugees. US soldiers collected food and clothing to be distributed to relief organizations. This grass roots program caught the attention of General Maxwell Taylor, the Eighth Army Commander. Congress authorized \$15 million in military assistance funds followed by an additional \$5 million. This is probably the first organized US military effort in facility reconstruction funded by a Military Assistance program. It was a successful model that accomplished many positive results. The mutual respect of the Koreans was reinforced by a positive effect on the morale of the Americans. Most importantly, US and Korean military expertise was used in a coordinated program to rebuild the infrastructure of civilian institutions using the economic resources of the country. Military equipment and personnel were authorized if combat readiness did not suffer. The Korean government supplied local materials and effort. The estimated final cost of the facilities constructed was approximately three times that of the initial investment in material and supplies. The program was directed at replacing or repairing war-damaged facilities that benefited the majority of the local residents. Priorities established included schools, public health buildings, orphanages, civic buildings, public utilities, and bridges. A medical program was emphasized in the Korean program that provided equipment and supplies, as well as medical personnel.

Source: United States Congress. Senate Committee on Foreign Aid. Near East and South Asia (Subheading B), Distribution of Military Resources to Economic and Social Progress (Annex D, June 1959). *The President's Committee to Study the United States Military Assistance Program. Final Report*. Washington, DC: US GPO; 17 August 1959: Annex D: 127–136.

dum, in 1961 endorsed military civic action.<sup>21(p77)</sup>

The US Army Special Forces' mission developed by President Kennedy between 1960 and 1962 was patterned after the Philippine counterinsurgency model.<sup>21,22</sup> Kennedy, as the champion of the counterinsurgency movement, was directly influenced by its policies after visiting Vietnam in the late 1950s when he was a senator.<sup>23</sup> During his brief period in office, President Kennedy also instituted a large program in support of host-nation military civic action programs within Latin America. Congress authorized funding for the Military Assistance Program as a direct response to the Draper Committee Report.<sup>19</sup> The purpose of increased funding within the Military Assistance Program was to assist those countries in Southeast Asia and Latin America that were fighting local insurgencies. President Kennedy, who had first linked counterinsurgency doctrine to the Special Forces mission in Vietnam, also linked it within Latin America.<sup>21</sup> Special Forces, in their military civic action programs, trained host-country nationals in primary healthcare and field sanitation. They also provided rudimentary healthcare to the rural population. All of these programs were identified with a nation-building role. The concepts of disaster relief, with its implied humanitarian mission, and military civic action were also linked with Special Forces programs in the 1960s.<sup>24(p147)</sup>

In a 1962 memorandum the Joint Chiefs of Staff acknowledged that nation building, a goal of military civic action, was not foreign to the United States Army, and has been its major task in the latter half of the 20th century in America. The Joint Chiefs of Staff admitted that nation-building concepts had fallen into disuse, and that their reemergence in military assistance programs represented a major change in practical US military orientation.<sup>21</sup> With a renewed interest in low-intensity conflict doctrine in the mid-1980s, a Special Operations Command (SOCOM) was established in 1987. (Exhibit 24-3 discusses the SOCOM nation-building role.)

#### **Southeast Asia and Vietnam: Implementation of Civic Action Programs**

There is strong evidence to suggest, however, that the US Army did not effectively alter its practical military orientation to accommodate nation building and military civic action in Vietnam. Civic action/civil assistance programs in Southeast Asia, including Vietnam, were always associated with the primary mission of training and operations of the host country military using US military personnel. A secondary role for these US military advisors and trainers was in civil assistance programs. The secondary role supported the host country by assisting in improv-

## EXHIBIT 24-3

## SPECIAL OPERATIONS COMMAND

The Special Operations Command (SOCOM) was established by Congress in 1987 as it renewed its interest and emphasis in the doctrine of low-intensity conflict (LIC) in the mid-1980s.<sup>1</sup> The primary mission of this command was to prepare Special Operations Forces for rapid reinforcement of other unified commands. The peacetime mission of these forces was to deter the escalation of violence at the low-intensity spectrum of warfare. This mission is again linked with a nation-building role. The wartime mission is to support US conventional forces. These roles are similar to those first developed by Special Forces in Vietnam. Special Operations Command continues to emphasize a high visibility role for Special Operations Forces in nation building.

Special Operations Command doctrine dictates that civil affairs units coordinate civic action programs.<sup>2</sup> Except for the active duty civil affairs group assigned with the 1st Special Operations Command at Fort Bragg, North Carolina, all others are in Reserve or National Guard units. In the Southern Command (SOUTHCOM), a civil affairs office regulates all Reserve and National Guard training exercises in the command. General Gorman, former Commander in Chief (CINC) of SOUTHCOM from 1983 to 1985, cautioned in a 1991 interview that the roles of Special Forces medics cannot be used interchangeably with those of medical department personnel and their missions should not be mixed.<sup>3</sup> He further stated that advocates of Special Operation Forces want others to believe that they are capable of all low-intensity conflict missions. General Gorman specifically excluded the missions of medicine, engineering, transportation, public information, and logistics from Special Operations Command.

Because of military deployments in Central America during the last decade the US military defined the doctrine for low-intensity conflict. Therefore, it is not surprising that the humanitarian nature of medical civic action is so often linked with counterinsurgency doctrine in Latin America. The original large programs of the 1960s targeted medicine and engineering projects in Latin America.<sup>4</sup> In fact, even the Army Medical Department (AMEDD) issued its own version of this doctrine in 1990.<sup>5</sup> The policies and procedures found in this doctrine incorporate the lessons learned during US Army medical deployments to Honduras in 1983.

Sources: (1) Lindsay JJ. The unified and specified commands. US GPO, Washington, DC: US GPO; December 1987: 49–52. (2) Personal interview with Lieutenant Colonel Paul Michash, Assistant Secretary for Defense for Civil Affairs, 3 December 1990. (3) Personal interview with General Paul F. Gorman, 20 March 1991. (4) Inter-American Defense Board. *Work of the Armed Forces in the Economic and Social Development of the Countries (Military Civic Action)*. 8 June 1965 [internal unclassified publication]. Available from Clearinghouse for Federal Scientific & Technical Information, Springfield, Va. (5) US Department of the Army. *Combat Health Support in Military Operations Other Than War*. Revised Final Draft. Fort Sam Houston, Texas: US AMEDD C&S. Field Manual 8-42.

ing villages' infrastructure and took a variety of forms. A benefit of these training programs helped host country nationals to learn and apply their new knowledge at the village level even after the US military left. Some joint exercises with host country military provided medical visits to villages. Others involved: (a) improving sanitation (water sanitation and well drilling, as well as sanitation in restaurants and homes); (b) assisting in teaching and building/repairing schools; (c) teaching crop rotation and spraying; (d) improving transportation (road building and repairs); and (e) improving quality of life by providing materials and services (children's playground, generator to show movies, roofing for markets to enhance cleanliness, and community support to build electric generators).<sup>20(pp92-99)</sup> (Other successful programs were in Korea and in the Philippines. However, unless national policy was de-

veloped and backed by the power of law and appropriations, no models for humanitarian assistance would be developed.) A previously confidential 14 September 1968, Department of the Army study, *Nation Building Contributions of the Army (NABUCA)*, admitted that civic action programs in Vietnam had not worked because "they had failed to involve the people."<sup>25(pIV-16)</sup> The study went on to state that "the major cause of the Army's weaknesses in nation building is the lack of qualified personnel to plan, conduct and advise on integrated nation building programs,"<sup>25(pIV-17)</sup> and that "few offices [sic] are available who have the know-how to elicit people's participation in civic action projects. This is a skill that requires special education and experience to develop."<sup>26(p213)</sup>

Although the NABUCA study does not mention it specifically, Herrington, in an account of his ad-

visory experiences in Vietnam during 1971 and 1972, suggests that a particular quality found to be lacking in American efforts in Vietnam was that of cultural empathy. He stated “most Americans are not equipped to forge an effective working relationship with their Vietnamese counterparts,”<sup>26(p213)</sup> and added “the cultural and linguistic barriers were almost impossible to break.”<sup>26(p214)</sup>

The NABUCA study hinted that a new concept was being developed to remedy the situation. The new effort came to be known as the “Civil Operations, Revolutionary Development Support” (CORDS). Conceding that the individual and diffused efforts of the US Army, the US Agency for International Development (USAID), the Central Intelligence Agency (CIA), and the US Information Service (USIS) were failing, President Johnson authorized the formation of CORDS. CORDS became the operational head for all 44 provinces and 271 districts in South Vietnam between 1967 and 1972.<sup>27</sup> US military advisers and civilian specialists from USAID, USIS, and the CIA were told to win the “hearts and minds” of the rural Vietnamese. McCollum, who has written about CORDS and its successes, alleges almost unqualified success for the CORDS program prior to the 1973 US withdrawal.<sup>27</sup> The CORDS effort in Vietnam was somewhat effective because it was operating under a single manager concept, but was doomed to failure because it lacked other necessary ingredients for success. There was neither full central support of the government nor support at the level of the provincial village chiefs to allow villagers to become independent. The power of the host-country military and the provincial chiefs over the civilian population interfered with the development of other village leaders for fear of losing their own power. Additionally, as the war escalated, with increasing manpower losses, fewer soldiers were available to do civic assistance activities.<sup>21(pp273–277)</sup> Regardless of the specific impact of CORDS, McCollum’s article calls attention to the fact that successes achieved in Vietnam during pacification have been obscured by the overall negative nature of the conflict’s outcome.

With the impending US military failure in Vietnam, turning the fighting over to the South Vietnamese military, the US troop drawdown, and the ongoing peace negotiations (which sought the release of US prisoners of war and the withdrawal of US forces), the US public voiced a strong desire to reduce direct military involvement abroad. Economic support of foreign military forces was becoming unpopular, accompanied by increasing sentiment that foreign aid programs were of little benefit.<sup>28(pp51,171–173)</sup> In a scathing report published in 1972, the US Congress urged the creation of a Developmental Assistance Program under the administration of USAID that was distinctly separate from the Security Assistance Program. This new program strengthened the nation-building role for USAID and further removed this mission from the DoD.

It is a truism that the Vietnam debacle elicited a US Army movement away from military civic action and low-intensity warfare, and back to the security of a conventional tactical doctrine in which it had great success in World War I and World War II. Blaufarb contends that this shift occurred just after the final North Vietnamese offensive of 1975.<sup>21</sup> As such, military civic action as a viable concept only survived 14 years, hardly enough time for it to be understood and applied during the chaotic Vietnam era.

Despite the many controversies regarding the US involvement in Vietnam, the Surgeon General of the US Army, Leonard D. Heaton, emphasized that political opportunities provided by medical civic action programs could improve America’s foreign relations.<sup>29</sup> He saw that military medicine could improve people-to-people relations in underdeveloped countries and could be a model for these nations to follow. It is my opinion that the model of Medical Civil Action Programs (MEDCAPs) developed during the Vietnam war influenced the development, implementation, and transition to a modern concept of humanitarian assistance missions for deployed troops in regional conflicts abroad. The development of the model, however, did not come easily, nor was it immediate.

## THE CHANGING CONCEPT OF NATION BUILDING (1975–2000)

### The Aftermath of the Vietnam War

Nation building and civic action, as useful missions for the Special Forces, fell into disrepute after the communist unification of Vietnam in 1975. Budget and manpower cuts of up to 95% followed as the mission of the Special Forces was changed. The

US government shifted its focus from counterinsurgency threats to foreign policy conflicts with the former Soviet Union. With the emergence of worldwide terrorism, exemplified during the administration of President Carter with the seizure of the US Embassy and staff in Tehran, Iran in 1979, a strategy of military readiness in the form of “quick re-



action” forces was developed. Unfortunately, the mission failure of the Special Operations forces that deployed to rescue the US Embassy hostages in Iran in 1980 served to highlight the weaknesses of the organization and planning of that joint services’ mission. Since then, the use of Special Forces in support of American objectives in foreign policy has again been successful. The most recent example is their use in October 2001 as “quick reaction” forces in Afghanistan, to aid in the overthrow of a government that harbored terrorist organizations.

In the early 1980s, in the subsequent Reagan administration, the focus shifted to counterinsurgency movements in Central America. As a consequence, the doctrine for low-intensity conflict was reviewed, which stimulated a rethinking of the role of Special Forces. The previous (and original) counter-insurgency doctrine was developed in the Philippines and was applied to Latin America and Southeast Asia by US military forces. The medical doctrine for low-intensity conflict was written in the mid-1980s.<sup>30</sup> Cold War politics was thus responsible for linking military civic action programs with the counterinsurgency movement and its doctrine for the next 20 years.

It should be remembered that the military involvement in Vietnam had demonstrated the benefits of nation building through congressionally mandated assistance programs. Military leaders, many of whom were Vietnam veterans, framed the policy questions and developed the strategies for future humanitarian assistance programs in Central America.

In this chapter I will discuss two of these programs, those in Honduras and El Salvador, as examples of successes. Both were under the purview of the Southern Command (SOUTHCOM), US Army (see Exhibit 24-4). Although the goals of these two programs were essentially the same—nation building leading to regional stabilization—their legal basis differed. The Salvadoran government chose to use Security Assistance Program funding for Foreign Military Sales (as previously described)—funds provided by the United States government for medical assistance rather than for military training and weaponry—because of the protracted civil war in El Salvador. Prior to the change in law in 1985, the medical civic action activities in Honduras were developed as part of medical exercises for deployed US medical, dental, and veterinary personnel in an effort to maintain their skills and proficiency. However, the El Salvadoran MTT program trained host-country military medical personnel in trauma and evacuation procedures, whereas in

Honduras, the primary health care needs of the civilian population were addressed. In both countries, these exercises were generally welcomed and supported. Even though these two programs essentially ran concurrently, they will be discussed separately in this chapter, beginning with Honduras (as that was the country that came to the attention of the US Congress as it reviewed the role of the DoD in the early days of military humanitarian assistance missions.) But first, a brief description of the overall situation in Central America when these medical exercises were instituted will help establish the context in which these humanitarian assistance programs were undertaken.

### **Nation Building in Central America: The Background**

In the late 1970s and early 1980s Central America was in turmoil. In 1979, a protracted war in El Salvador was under way, fought by at least five separate guerilla forces. Fidel Castro, the communist leader of Cuba, convinced the separate guerilla forces in El Salvador to unite under the *Farabundo Martí National Liberation Front* with its main purpose to overthrow the existing government by violent means. Arms shipments from Cuba and the former Soviet Union were funneled into the country by way of Nicaragua, which also supported training for the insurgents. The United States sought to counter these guerilla efforts by providing military support to the elected government of El Salvador through the Military Security Assistance Program and foreign military sales.<sup>31,32</sup>

From 1979 to 1983, the El Salvadoran Armed Forces (ESAF) had increased from 12,000 to 40,000 soldiers to combat the random attacks of these guerilla forces.<sup>33</sup> The ESAF and the Security Assistance Forces (US military acting as advisors [a very small number were allowed by the US Congress]) used a variety of means to reduce these random attacks on military and civilian targets.<sup>34</sup> After a change in ESAF tactics (to employing smaller units) additional successes were achieved through the use of an information campaign, intense civil defense programs, and military civic action programs. Over a 4-year period the estimated number of insurgents decreased from a high of 11,000 to about 8,000 in 1983. However, in response to the increased weaponry and equipment of the ESAF, a significant change occurred in the tactics of the guerilla forces. Their new emphasis was on small ambushes, terrorist attacks, and sabotage, with a high priority given to the use of land mines. This rapid transi-

## EXHIBIT 24-4

### SOUTHERN COMMAND

Southern Command (SOUTHCOM) commanders have actively pursued an aggressive policy to provide engineering services through civic action programs in Honduras. Engineering projects, the most accepted US civic action programs, are more tangible and are intuitively more acceptable in a cost-benefit analysis. In spite of their success, however, criticism has also been directed toward these engineering programs, especially when the policy of the host foreign nation does not or cannot support collaboration in joint projects. Medical civic action programs also have been criticized for both their methods and their achieved results. Most of these criticisms are made by various US governmental agencies or by other nongovernmental healthcare planners.

Since the law was enacted in 1985 to allow DoD to provide humanitarian/civic action (H/CA) programs in locations throughout the world, the Southern Command has consistently had the largest H/CA program, with significant successes in medical, dental, veterinary, and engineering programs. Of the various SOUTHCOM H/CA Programs, only the Medical Element, Joint Task Force Bravo at Soto Cano, Honduras, has been able to provide a long-term medical model, due to the continued presence of US forces. SOUTHCOM commanders had expected to replicate this model throughout the Americas and to export it around the world.

Despite the high visibility of the Medical Element, Joint Task Force Bravo, SOUTHCOM reports still classified most medical civic action projects as small in sheer numbers. For instance, in the SOUTHCOM FY (fiscal year) 1991 recommendations for humanitarian/civic assistance projects, only 33 of 234 projects (approximately 14%) were medical.<sup>1</sup> No medical projects were listed separately for Honduras but some were included with the engineering projects. These included the 24 (out of 125) engineering projects that involved digging of wells (the remaining 101 involved the construction or repair of schools). General Jowlwan, the SOUTHCOM Commander in Chief reviewed the information and reclassified this number to 80 of the 234 total projects.<sup>2</sup> Still, this is a paucity of medical training exercises in the overall program.

The Inter-American Defense Board Staff published an extensive list of "military civic action" projects in Latin America.<sup>3</sup> The thrust of the work was to define this nebulous term. Here it was defined in its broadest terms and meant any contribution of the military to the economic or social development of their country. For example, Chile established a Military Work Corps under the direction of the Commander-in-Chief of the Army. Colombia established a national Committee on Military Civic Action. The committee consisted of the ministers of government, war, agriculture, public health, national education, public works, and any private organizations that would work toward the same common goal. This organization seemed to be the most inclusive and was directed toward a cohesive plan at the highest political levels of the country. In a review of the projects in Latin America, health, sanitation, and education projects dominated. The coordinated activities of the US Medical Element, Joint Task Force Bravo directed their missions at this level.

Another productive exercise for the US Army Medical Department is the deployment for training exercises (DTEs) such as the maxillo-facial surgery teams.<sup>4</sup> US surgeons are deployed in these surgical readiness training exercises to maintain reconstructive surgery skills. These exercises consist of a team to repair facial deformities, such as cleft lips and palates, for Honduran civilians. Facilities are donated by the Honduran government to include bed space, operating rooms, and pre- and postoperative nursing care. These exercises provide an opportunity to maintain essential skills for plastic, otolaryngology, and oral surgeons in the US military because the frequency of these operations is lower in the United States. It provided the Honduran medical system a way to increase the number of these procedures that benefit the health of their countrymen. The liaison medical doctor for the Honduran Ministry of Health coordinates this highly successful joint effort. These US medical teams still provide this care to the large numbers of indigent patients who are unable to obtain treatment in Honduran public hospitals and clinics. The main public medical center, the Hospital Escuela, is limited in operating time and the regional hospitals do not have the specialists to perform these procedures.

Sources: (1) Memorandum for Deputy Assistant Secretary of Defense Wolhuis, Subject: United States Southern Command FY 91 H/CA Nominations, dated 30 July 1990. Author: William W. Hartzog, BG, USA Director, J#, Department of Defense, United States Southern Command, Quarry Heights, Panama. (2) Telephone interview, 22 March 1991 with General George A. Jowlwan, SOUTHCOM CINC. (3) Inter-American Defense Board. *Work of the Armed Forces in the Economic and Social Development of the Countries (Military Civic Action)*. 8 June 1965 [internal unclassified publication]. Available from Clearinghouse for Federal Scientific & Technical Information, Springfield, VA. (4) Colonel George E. Smith, Plastic Surgery in Honduras, Information Paper, 28 October 1987.

tion from a peacetime stance of limited garrison healthcare to a wartime posture required widespread use of competent field medical treatment, rapid evacuation, and comprehensive surgical and rehabilitative care to treat the casualties of land mine warfare.

By 1983 these activities in Central America were clearly of military interest to the United States. As already mentioned, El Salvador was in turmoil. Nicaragua was unstable with the Contra civil war, and Guatemala was fighting an insurgency. Honduras was also affected by the regional strife and was preparing to defend itself. Officials in Honduras indicated they intended to mobilize their country for quick air strikes into Nicaragua. The Costa Ricans had experienced repeated Nicaraguan incursions as well and were no doubt considering their military options.

Instability in Central America was of concern to the US Congress. In an effort to minimize or contain the influences of communism in Central America (eg, Nicaragua, insurgent activity in Guatemala and El Salvador), Congress authorized and appropriated funding for low-intensity conflict programs. General Gorman, as the SOUTHCOM CINC, was responsible for the strategy and program execution of these programs. His oversight included all activities in Central and South America to include medical programs.

The CINCs and their existing and new programs are reviewed and justified in a congressional oversight process. Any US assistance or intervention in the region would require congressional approval and funding, as well as extensive planning and coordination by his senior command staff and the Department of State. Such an intervention would also require the deployment of medical assets. However, up until 1983, SOUTHCOM did not have a command surgeon to formally advise the CINC regarding medical issues in the geographic region assigned to SOUTHCOM. The Commander of Gorgas Army Hospital was the informal advisor to the CINC, SOUTHCOM, but knew little about the medical problems in the region. Consequently, General Gorman authorized a new position, Command Surgeon, SOUTHCOM, to advise him on medical problems within his region. General Gorman, working with his command staff, developed a plan for civic action/nation building military exercises in Central America. With the US shift in focus to Central America, Honduras was a logical choice for beginning a nation building effort because it was still neutral and welcomed a US presence to deter

further regional conflicts.

In his congressional report in the spring of 1983, General Gorman stated his three outcome goals for exercises to be conducted in Honduras. First, all operations should improve readiness of the armed forces of Honduras and in so doing deter regional conflict.<sup>35</sup> Second, all exercises should have a legitimate training value for both US and Honduran forces. And finally, all exercises should provide a tangible benefit to Honduras as the host country. Additional activities would pursue causes that advanced US national interests, some of which were of a classified nature. In a hearing with the Armed Services Committee in May 1983, General Gorman also offered three reasons why the US should deploy troops to Honduras by that August: (1) to deter the Honduran military mobilization and invasion into Nicaragua; (2) to convince the military leadership of Honduras to prepare for defense of their country; and (3) to reassure the government of Costa Rica of US support in the region.<sup>35</sup> At all times during their deployment, the United States would remain neutral in this effort to deter violence in the region. And, as part of the deployment force, there would be medical assets as necessary to maintain the health of the US forces.

### **The Beginning of the DoD Humanitarian Mission in Central America**

Several medical officers who had formerly served in Vietnam (including myself) were assigned as medical personnel supporting US deployed military forces in Honduras in 1983. The stated mission of the US hospital was to provide care for the US troops in Honduras. In an interview with the hospital commander, it became apparent that the training mission and the medical readiness mission of his personnel were also of primary importance.<sup>36</sup> He reasoned that just as line officers use weapons or maneuvers for their readiness training, medicine and the maintenance of diagnostic and treatment skills were the tools for medical training.

However, because medical readiness is not often tested in a young healthy population of US soldiers, the US hospital commander also wanted medical readiness and the maintenance of professional skills to be a mission requirement. The skills needed for deployments and the ability to practice medicine under austere conditions would prepare his staff for worldwide medical readiness. If the daily training of his medical professionals was restricted to the care of US soldiers only, a loss of skill would

occur during their temporary duty deployment of 6 months. Treating Honduran nationals could prevent this skill loss. Additionally, the individual benefits of dealing with healthcare in developing nations provided a personal satisfaction that few US healthcare professionals had previously experienced coming from a high-technology milieu.

General Gorman's agenda in Honduras was to use, as feasible, the US hospital as a resource to assist in improving some of the basic health problems of the Honduran armed forces. In addition, hospital inpatient care of Honduran nationals could be rendered on a space-available basis. The US Army medical officers who were assigned to Honduras were convinced of the value of a medical program based on their past experiences in Vietnam and what they saw in Honduras. They initiated a MEDCAP similar to those they had conducted in Vietnam.

General Gorman, with the first command surgeon in Honduras, Colonel Russ Zajtchuk, began the joint medical training mission concept with a broad-based program of interaction between the US and Honduran medical forces and the civilian community. In the Honduran armed forces, field medicine and sanitation precautions were inadequate. Immunizations, malarial prophylaxis, and antisnake bite venom was provided sporadically because of lack of supplies and inadequate logistical support. Simple emergency care provided by a combat medic was nonexistent. The situation was so severe that many soldiers refused deployment to areas of high health risks or to remote areas without doctors. Medical evacuation and logistical support were rudimentary.

The president of Honduras, who was also a physician, was certainly concerned about the difficulties of providing healthcare to his soldiers, but he also had another health concern: the assumed potential for US military troops to harbor and spread what is now known as the human immunodeficiency virus (HIV), which causes acquired immunodeficiency syndrome (AIDS). Extensive adverse publicity with incomplete data of the etiology and transmission of this health hazard was just appearing in the early 1980s in the US press. The issue of identification and control of the disease in the US military troops stationed in Honduras was important. The president's concerns were addressed by attaching a US Army hospital to the US task force. General Gorman was convinced of the critical importance of the hospital in influencing the president's decision in favor of stationing US troops in Honduras. He testified that the deployment of medical personnel "was the *sine qua non* for SOUTHCOM's

program and the US presence in Honduras. Had we not had the US hospital, we would have lost the game."<sup>35</sup> Locating the US hospital in the area of highest troop concentration would assure that the health problems of US troops would be handled immediately by US medical personnel.

On the basis of a review of Honduran troop readiness, General Gorman urged their armed forces commander and chief of staff to delay any mobilization against Nicaragua in favor of further training for their armed forces.<sup>35</sup> He emphasized the details of what was necessary to deploy an army in the field as well as how to address Honduran security concerns without recourse to violence. Both of these needs could best be met by Honduran participation in joint training exercises. These exercises would strengthen their military readiness capabilities that would then become a powerful tool in deterring regional conflict. This, then, was the basis of the original project model in Honduras. It was similar in execution to the medical civic action programs in Vietnam.

As a result of these interactions between Honduran and US forces, it was possible for the logistical, organizational, and preventive medicine expertise of the medical element to build a collaborative framework to bring healthcare to rural areas. (See Exhibit 24-5 for a further discussion of the evolution of the medical elements in Honduras.) Honduran citizens, primarily in remote mountain areas, now saw their own country medical personnel working to treat them. It was not unusual for these people to have never seen medical healthcare workers. Honduran healthcare workers were deeply moved to work side-by-side with Americans to treat the Honduran populace.

It is my assessment, based on my experience in Honduras, that the host-country private, public, and military healthcare systems were strengthened, some of the health needs of the rural areas were identified and corrected, and a caring side of both the nation and the US military and medical personnel was evident as a direct result of this program. Providing for some of the very basic needs in primary care treatment and health education programs for these people was the least controversial means to assist developing nations in Central America. During this transition period to democracy, the DoD National Security Strategy initiatives (drafted in 1983) in SOUTHCOM were advanced. The Humanitarian Task Force Report, which detailed these activities and accomplishments, was forwarded to the Secretary of Defense.

In 1984 the Secretary of Defense approved the



## EXHIBIT 24-5

### US MILITARY MEDICAL UNITS IN HONDURAS

Since the inception of the civic action programs in Honduras, there have been three medical units involved: (1) the 41st Combat Support Hospital, (2) the 47th Field Hospital, and (3) the Medical Element, Joint Task Force Bravo.

1. 41st Combat Support Hospital, Fort Sam Houston, Texas (August 1983–February 1984). Colonel Russ Zajtchuk, Commanding. The 41st Combat Support Hospital was complemented by two Medical Companies (546th [CLR] and 690th [AMB] from Fort Benning, Georgia); D Company, 326th Medical Battalion [Air Ambulance Company] from Fort Campbell, Kentucky; the 225th Preventive Medical Detachment [LC] from Fort Sill, Oklahoma; and the 73rd Veterinary Detachment [JA] from Fort Jackson, South Carolina. The number of Army personnel supporting the exercise named AHUAS TARA (Spanish for “Big Pine”) was 421. This Army Combat Support Hospital deployed from Fort Sam Houston, Texas, to support approximately 12,000 US soldiers during AHUAS TARA II (Big Pine II), and joint US-Honduran exercises. The hospital was set up in a 200-bed configuration of inflatable units supported by six U-packs (inflatable units) to maintain inflation and heating and air conditioning. Billeting was all under tents. Water buffaloes were the source of all drinking water. Human waste was disposed of using burn-out latrines and soakage pits. Medical evacuation within country was accomplished using six UH-60 Blackhawk MEDEVAC (medical evacuation) helicopters configured as air ambulances. Having the helicopters under the control of the hospital commander permitted large numbers of medical training missions through the provision of humanitarian assistance. The highly successful immunization program was largely due to logistical air support and in-country coordination with Honduran officials.
2. 47th Field Hospital, Fort Sill, Oklahoma (February 1984–August 1984). Colonel John Hutton, Commanding. This Army field hospital deployed from Fort Sill, Oklahoma to Palmerola Air Base with approximately 225 personnel to support the GRANADERO (Spanish for “grenadier”) I exercises of Joint Task Force Alpha. By June of 1984, medical staffing numbers ranged from 50 to 90 and was able to serve a 15-bed hospital with expansion capabilities to 30, one operating room and one triage area during the transition of the Palmerola Air Base (now Soto Cano Air Base) to Joint Task Force Bravo. Tents were used for both hospital and billeting functions. Water buffaloes were still the source of all drinking water. Human waste was still disposed of using burn-out latrines and soakage pits.
3. Medical Element, Joint Task Force Bravo (August 1984–present); Lieutenant Colonel Lou A. Popejoy, Commanding (August 1984–February 1985); Colonel Joan T. Zajtchuk, Commanding (February 1985–September 1985). The medical element manning document consisted of two-thirds Army and one-third Air Force medical personnel until June 1985. Air Force rotations were every 3 months; Army rotations were every 6 months. After this date, the entire unit consisted of Army medical personnel rotating for 6 months. The long-standing presence of this Medical Element continues to assist not only US troops but supports medical exercises for the benefit of Honduras such as assistance during Hurricane Mitch, the recurrent joint activities with the Ministry of Health, and the Honduran Military and the maxillofacial DTFs (dental treatment facilities). The previous hospital and its adjacent buildings and personnel billeting now used elevated Central American Type (CAT) wooden huts. The operating room was a 12 x 20 foot, double-walled box. Air conditioning of the hospital CAT huts was completed by June 1985. Billeting quarters were improved at this time to provide foot and wall lockers, and beds instead of cots. Two UH-1H helicopters supported the Medical Element Mission for air evacuation. A motor pool supplied all heavy duty trucks for land missions. The schedule consisted of alternate weeks of one land mission and three air missions. Air missions required the use of Chinook helicopters to transport personnel and supplies. Until July 1985, when medical service corps officers were assigned, medical corps officers were utilized for planning and operations, medical logistic support and for all administrative actions.

The program has made steady progress in Honduras, although at times it has been very slow. For instance, construction plans for a permanent hospital for the Medical Element were developed and signed in 1985; the hospital was built by US engineers in 1991. As the Task Force presence became more permanent, sanitary facilities were brought up to standards. The mission was to (1) provide area medical support to US forces in Honduras: (a) Air ambulance evacuation, (b) veterinary activities such as meat inspection, oversight of the dining facilities, health and quality standards of the Post Exchange, and the health of Military Police dogs (c) Preventive Medical oversight to all units (water and waste management, vector control, oversight of food preparation, prevention and control of sexually transmitted diseases); (2) conduct unit Readiness Training Exercises for (a) medical, dental, and veterinary activities (b) to maintain an Emergency Medical Response Team (a rapid response medical team that can be deployed quickly for trauma situations or natural disasters), and (c) conduct simulated mass casualty exercises; (3) provide logistical and operational support base for US continental-based medical units deployed to Honduras for training (Reserve and National Guard units, and two rotations for training of Special Forces Medics).

Humanitarian Task Force Report. The Department of Defense' Office of Humanitarian Assistance, OPR: OSD/ISA (Global Affairs), was created that same year as a direct result of recommendations of the Department of Defense Humanitarian Task Force Report. The Deputy Undersecretary of Defense for Policy was given the authority to coordinate all of the Humanitarian Assistance activities within DoD. In September 1984, Dr. Robert K. Wolthuis, Special Assistant to the Deputy Undersecretary, was made the first DoD Coordinator and Director for Humanitarian Assistance. This office also addressed the distribution of surplus equipment and supplies and was integrated with host-nation civilian and military medical activities. As an example, civilian organizations abroad could request equipment and supplies. Transportation funding would be provided by this office. Each branch of military service was directed to provide a civilian or military officer as the liaison to the office.

Despite the humanitarian nature of this new program, the creation of this office and with it a perception about its influences on a nation-building role for the Department of Defense had negative connotations.<sup>37</sup> This was due to the previous association of civic action programs with counterinsurgency and low-intensity conflict doctrine in Vietnam. (These negative connotations were widespread and persisted for more than a decade after US withdrawal from Vietnam. For example, a US military pediatrician stationed in Honduras attempted to purchase a copy of *Where There Is No Doctor*, the practical rural-health textbook. The sale was refused in a written reply by the book's author who stated that the roles of military medicine and humanitarian assistance represented conflicting motives.<sup>38</sup>) Dr. Wolthuis, the first Director of this policy office, shared the concern regarding the negative connotations that so closely associated Special Forces with medical civic action programs. As a result, Special Forces missions were excluded in the funding process. Dr. Wolthuis was convinced that the Department of Defense, despite its past negative publicity, could participate in assisting developing countries by performing smaller projects in the larger context of a nation-building role of the Department of State.

By mid-1984, General Gorman's initiative in attaching a military hospital that provided care to Hondurans had come to the attention of the Government Accounting Office (GAO). A May 1984 GAO report criticized DoD, and specifically SOUTHCOM, for expending appropriations for humanitarian/civic assistance mission for which it had no authority.<sup>39</sup> The report noted that the US hospital commander and command surgeon for Honduras had used medical

supplies, logistical support for deployment to remote villages, and US military hospital facilities for purely humanitarian/civic assistance missions of direct benefit to the host nation.

Despite the critical GAO report, a gradual maturing of the program goals had evolved into an acceptable working model that ultimately assuaged the various critics. These medical training exercises were of particular interest to the US Congress. The issue to be resolved was whether or not there would be authority granted to officially provide for an expanded role for humanitarian assistance in Department of Defense missions.

This section about the role SOUTHCOM played in the development of humanitarian assistance doctrine would be lacking without the comments of General Maxwell R. Thurman. He influenced the programs in SOUTHCOM through his successors such as General Gorman and General Jowlwan. He supported the development of a medical model so that military-to-military partnerships could be effectively developed. He was the "soldier's soldier" and recognized the discrepancies in the provision of healthcare in foreign military forces as compared to US standards. He wanted to provide a training program addressing these shortfalls so that basic needs of the soldier could be met. His death in 1995 culminated a long and productive Army career. He was responsible for modernizing the US Army and was a champion of military medicine (Exhibit 24-6).

### Formalizing the Role of the Department of Defense

After lengthy congressional debate, the Department of Defense was authorized to use operational and maintenance funds in May 1985 for humanitarian/civic assistance projects if the expenses incurred were "incidental to authorized operations."<sup>36</sup> What was considered incidental was not specifically delineated but was, in general, training of an informal nature where both the host forces and the US forces benefited. For example, in a Medical Readiness Training Exercise (MEDRETE) in Honduras, both Honduran military and civilian health personnel and their US counterparts would deploy to remote areas (Figure 24-1). A variety of medical services were provided to include:

- immunizations, clinical evaluations (Figure 24-2), and dental extractions (Figure 24-3);
- veterinary examinations and immunizations (in cooperation with Honduran veterinarians) (Figure 24-4);
- preventive medicine lectures;

## EXHIBIT 24-6

### GENERAL THURMAN'S EVALUATION OF MEDICAL MILITARY CIVIC ACTION

General Maxwell R. Thurman, when he was the Commander in Chief, Southern Command (CINC, SOUTHCOM), completed a 5-year program to include military civic action within complementary DoD programs for the region. In an interview I conducted in May 1991 with General Thurman after his retirement, he shared his goal for the medical benefits of all related civic action programs in Latin America. That goal included a plan to provide the same basic healthcare resources and education as provided for US military forces to be implemented in programs for the field medical and casualty care of all conscripted soldiers in Latin America. Even under ideal circumstances this would have been a daunting task considering the medical capabilities of the various countries compared to the level of healthcare provided to United States forces. Circumstances were (and continue to be) considerably less than ideal due to disruptions associated with narcotics traffic, civil unrest, a lack of general support of the US military model, issues of national sovereignty, and the lack of resources.

To better understand how there was such a paucity of existing medical exercises in SOUTHCOM, I asked General Thurman to comment on these low numbers. It was his opinion that a medical model needed to be developed for the use of the military group commanders. This model would have to address healthcare at the host country political level so that they would accept the value of the partnership to improve their military health standards. General Thurman's goals were twofold. One was to have all engineering projects include an accompanying medical training exercise. This medical program must be directed to a level of healthcare learning interactions rather than on the "Band-Aid" approach. His second goal was to develop a coordinated program to teach Latin American military forces the basic requirements for the maintenance of healthy troops. This would include adequate rations, preventive and field medicine, and adequate combat trauma care. This is the unmet long-term goal that still requires the interaction of both the civilian and military healthcare system at a national level. This goal can be realized by integrating a variety of Army Medical Department training programs and personnel exchanges such as the Subject Matter Expert Exchange Program. The CINC, SOUTHCOM should be instrumental in highlighting this concept with US agencies and foreign militaries.

- patient referrals (to regional civilian clinics and hospitals for follow-up care) (Figure 24-5); and
- disease data collection (for the Ministry of Health to ascertain overall healthcare level of the nation).

Patients requiring urgent care were transported directly to the US hospital or to regional hospitals. These joint-training exercises, even with their limitations, provided valuable training to US military medical personnel working under austere conditions. They also provided the logistical support for Honduran healthcare workers to provide care in their own underserved rural communities.

Although Congress, via the Steven's Amendment in Fiscal Year (FY) 1985,<sup>40</sup> only addressed medical humanitarian activities in conjunction with authorized military exercises in Central America, it gradually expanded the mission description to include a broader range of activities. It was implemented later in worldwide deployments for all military branches and a 5-year budget ceiling was mandated.

The Department of Defense program that provided humanitarian assistance in conjunction with



**Fig. 24-1.** Villagers approach UH-60 medical helicopter providing transport for US military and Honduran military and civilian medical personnel and supplies for a humanitarian assistance mission in a remote mountain village in Honduras. Without this logistic support, most regions were totally inaccessible for medical care. Photograph: Courtesy of Joan Zajtchuk, MD, from the combined collection of photographs taken by members of Joint Task Force Bravo, Honduras (1983–1985).





**Fig. 24-2.** (a) Military police personnel assist the medical team effort in unpacking medical supplies. In the background, villagers are being triaged for medical diagnosis and treatment. (b) A US Army physician and nurse examine an infant to diagnose a middle-ear infection. Photographs: Courtesy of Joan Zajтчuk, MD, from the combined collection of photographs taken by members of Joint Task Force Bravo, Honduras (1983–1985).

US military operations prompted Congress to authorize and fund a more general DoD program in 1987. The permanent authority under Title 10, Chapter 20—Humanitarian and Other Assistance, Sec. 401 includes: (a) medical, dental, and veterinary care provided in rural areas of a country; (b) construction of rudimentary surface transportation; (c) well drilling and construction of basic sanitation facilities; (d) rudimentary construction and repair of public facilities; and (e) detection and clearance of land mines. Projects initiated under this authorization must promote the security interests of both the United States and the host country and must also promote specific operational readiness skills for US military personnel who participate in the activities.

Under this new legal authority, the role of the DoD Office of Humanitarian Assistance shifted to providing policy. This office has no budget to directly support programs in humanitarian assistance and civic action; its function is to coordinate and oversee those H/CA activities that are “in conjunction with authorized military operations of the armed forces in a country.” In this capacity it must serve the basic economic and social needs of the country in which the assistance is given. Addition-



**Fig. 24-3.** US military dentist extracting infected or severely decayed teeth in an adult. Under these conditions, restorative dental care was not an option. Honduran medical personnel taught dental hygiene in classrooms of the village school. Photograph: Courtesy of Joan Zajтчuk, MD, from the combined collection of photographs taken by members of Joint Task Force Bravo, Honduras (1983–1985).





**Fig. 24-4.** (a) A US Army veterinarian specialist provides oral treatment for intestinal parasites in a horse. Horses were also immunized against Venezuelan Equine Encephalitis. (b) Pigs are receiving oral treatment for intestinal parasites. They were also immunized against cholera. Joint US-Honduran teams provided the expertise. Lieutenant General Bernhardt Mittemeyer, Surgeon General, US Army, observes treatment. Photographs: Courtesy of Joan Zajтчuk, MD, from the combined collection of photographs taken by members of Joint Task Force Bravo, Honduras (1983–1985).



**Fig. 24-5.** A Honduran child and family member from a remote mountain village await UH-60 helicopter transportation for further diagnosis and treatment at the 41st Combat Support Hospital. Photograph: Courtesy of Joan Zajтчuk, MD, from the combined collection of photographs taken by members of Joint Task Force Bravo, Honduras (1983–1985).

ally, the projects must have Department of State approval and must be coordinated with the USAID Bureau for Program and Policy Coordination to preclude duplication of other US government programs. The office focuses its coordinating efforts on surplus property disposal, transportation, disaster relief, civic action, and medical assistance.

In the past, jurisdiction had been given to the Department of State and USAID for roles in humanitarian assistance missions at the international level. Clearly any new role in humanitarian/civic action assistance for the Department of Defense had to be in support of existing federal agencies that were funded to perform this work. The new DoD program, therefore, required a memorandum of understanding between the DoD, the Department of State, and USAID to insure coordination of the projected Department of Defense H/CA programs.

#### **Honduras: Military Medicine in Civic Action Programs—The SOUTHCOM Model**

A series of events, beginning in 1983 with the increased interest in Central America, flowing

through General Gorman's initiative to use medical assets in SOUTHCOM to also care for Honduran soldiers and civilians, had now come to program implementation with the initial Stevens Amendment in 1985, and the subsequent Stevens Amendment in 1987 that expanded the program and gave it a legal basis. The latter had specified parameters and provided a budget for its implementation. It was now the authorized task of SOUTHCOM, in association with the Honduran government, to fully (and officially) implement the program.

Three parameters were to guide all of SOUTHCOM's humanitarian efforts in Latin America. Military exercises were to (1) improve readiness of armed forces to deter regional conflict, (2) have a legitimate training benefit for both US forces and those of the host country, and (3) be of obvious benefit to the host country. This was the mandate given to SOUTHCOM by the Congress in 1987. This mandate was gradually redefined as these training exercises came to be identified as medical civic action projects by both US commanders and Honduran nationals.

By 1989, the term "civic action" had replaced the term "medical readiness training exercises" (MEDRETEs). This substitution, however, confused the goal of the medical exercises. Humanitarian assistance and civic action were supposed to be a product of the training exercise, not the goal. Honduras had historically benefited from some small military civic action programs in engineering that were started in the 1960s under the Military Assistance Program (MAP). Medical exercises are still influenced by the past concept of this term. The attachment of medical personnel to complement all short-term civic action missions within engineer deployments is quite different than the more recent medical readiness training exercises. All healthcare operations, both United States' and Honduran (whether in conjunction with engineering projects or as strictly medical readiness training exercises), were designed to benefit the public health needs of the country. This entailed an extraordinary coordinating effort by the commander of the medical element with all Honduran civilian and military health agencies and providers. The influence of the former context of military civic action was apparent when the government of Honduras created the Office of Civic Action within the armed forces to plan and coordinate the corresponding military medical operations.<sup>41</sup> This, then, was the evolution of the program in Honduras during its first half dozen years, from approximately 1983 through 1989.

The successful civic action program in Hondu-

ras is unique because of the long duration of continuing US troop presence in Honduras (since 1983). Generally, civic action programs have only been used with a minimal or sporadic US military presence. A review of the program in Honduras demonstrates the extensive coordination and planning by the military with all governmental, public, and private healthcare stakeholders. The program provides primary healthcare in remote rural areas, to include vaccinations, instruction in rudimentary preventive medicine principles, and primary care treatment. Host-country civilian and military healthcare workers and US military medical personnel worked within the existing national healthcare delivery infrastructure. This demanded a cultural sensitivity to both the limitations of the host country resources and the US military medical efforts. The sustained US military presence in Honduras contrasts markedly with the use of civic action in most other countries.

#### **El Salvador: Military Medicine in Security Assistance Training Programs**

In the 4 years leading up to the first US military humanitarian involvement in El Salvador, the country had been in a period of escalating violence and casualties. Large-scale combat operations to seek out and destroy insurgent units and their bases, coupled with the rapid increase of Salvadoran armed forces and the insurgents' use of land mines, resulted in extremely high casualty rates. By 1983, the ESAF mortality rate was about 45% due to the lack of trained medical aid men in field units who could utilize emergency lifesaving procedures such as airway support and the control of hemorrhage. There was also a lack of dedicated field medical evacuation assets such as helicopters and ground ambulances. As a field expedient measure, both dead and wounded were transported in open trucks to receive advanced medical care. Simple first aid measures (such as tourniquet application to stop bleeding, the administration of intravenous solution to restore blood volume and prevent shock, and intubation to achieve airway control) were not done because of lack of training and supplies. Severely injured soldiers, as well as others with lesser injuries, often died during transport. This high mortality rate, combined with underlying medical and field sanitation problems, contributed to demoralization of the Salvadoran troops. The number of medical facilities was also inadequate to provide for combat casualty care for those wounded soldiers who survived the transport. (The military hospital



in San Salvador, for example, had increased its military physician staff from two to eight in an attempt to handle an occupancy rate that was 345% greater than planned capacity.)

These dire military medical statistics prompted President Reagan to send a US Army medical mobile training team (MTT) to El Salvador in 1983, although the US military presence was limited due to security problems throughout the country. This medical team deployment was funded through the Security Assistance Training Program under the Foreign Military Sales (FMS) program.<sup>42</sup> This program provides for International Military Education and Training (IMET) and is managed by the security assistance officer of the host country. Both the cost of equipment and personnel are covered by these funds. Countries receiving IMET funds are determined by the congress, the president, and the Department of State. Reimbursement for the military training provided is made from foreign assistance appropriations. The Salvadoran government had requested that a portion of their Security Assistance funds be used for the development of this training program.

The overall goal of the US Army MTT was to improve the survival chances of the wounded Salvadoran soldier (a) on the battlefield (by improving the knowledge and skills of the combat medic as well as the overall field sanitary environment), (b) through the transport process (by improving the speed of the transport), and (c) to the major medical facility for surgical care (by improving the surgical capabilities and skills of the medical staff). The majority of these wounded soldiers had been injured by land mines.

Once they arrived in El Salvador, the US Army medical training team worked to establish a trauma surgery system, emphasizing simple life saving support care through the training of combat medics in battlefield resuscitation as well as field sanitation. The system also involved training individuals for the rapid evacuation of the wounded by helicopter. Another important goal was to create a more responsive surgical capability for battle casualties. Training included a combination of both formal course instruction and informal technical and management guidance.

An essential component of the program was to teach basic battlefield first aid to individual soldiers and to train and equip combat medics. These combat medics would now provide the first life-sustaining measures for the wounded. (This intensive training of El Salvadoran medics in these areas was not available through the resources of their own coun-

try.) Other critical medical priorities were to train nursing and biomedical equipment maintenance personnel and to develop a responsive medical logistics system. An important preventive medicine mission included the requirement to upgrade field and garrison sanitation and individual hygiene. An active program to train medical service personnel in logistic supply was also instituted.

In addition to the equipment and training provided, a small combat support hospital (Figure 24-6) was constructed at San Miguel,<sup>33</sup> in the eastern region—an area of high guerilla activity. Important medical stabilization measures instituted by an experienced surgeon increased the survival of patients being transported to the main military hospital at San Salvador. In summary, the accomplishments of the training mission can be measured as follows (for the 18-month period from June 1983–December 1984) for the members of the MTT:



**Fig. 24-6.** These Salvadoran soldiers are recuperating in a combat support hospital. Most would have died of injuries before the training program of Salvadoran medics by a US military medical training team. Evacuation procedures and early treatment of traumatic injuries were taught and were provided in Salvadoran field hospitals in close proximity to combat regions. Photograph: Courtesy of Russ Zajtchuk, MD. Reproduced with permission from *Military Medicine: International Journal of AMSUS*. 1989;154(2):60.

- trained 1,011 combat medics, 19 senior medical noncommissioned officers, 39 medical evacuation aid men, 32 dental technicians, 88 intensive care nurses, and 8 biomedical equipment repair technicians;
- improved the medical supply system;
- assisted in organizing a field medical battalion;
- participated in structuring a unified medical system; and
- created a 72-man Medical Service Corps.

As a result of these efforts, the mortality rate of wounded soldiers decreased from 45% to 5%.<sup>33</sup> Combat medics achieved similar evacuation results as those of US medical personnel in Vietnam. The training of the combat medic to perform life-saving care in the field was responsible for this significant reduction in mortality.

In 1985, the Chief of Staff of ESAF approved a small medical civic action program to be done in conjunction with tactical operations. This program provided resources for immunization, primary healthcare, and dentistry, and was similar to the SOUTHCOM model used in Honduras. The USAID also agreed to fund additional civic action programs but only under the supervision of the Ministry of Health or regional civilian healthcare programs. These civilian programs took place only in secure regions close to urban areas. Military forces were invited to participate in these exercises. One important civic action project under ESAF was a campaign to reduce the number of people injured by land mines. This public service campaign, showing pictures of the types of land mines, their explosive range, and the type of injuries they inflicted, was distributed to educate the rural population on this danger.<sup>43</sup>

Follow-on care for victims of land mines was also part of the overall mission of the medical training team. One of the outstanding projects was the rehabilitation program for amputees.<sup>44</sup> The insurgent's use of land mines had caused an increased incidence of injury necessitating amputations in both the military and civilian populations. The mines were commonly placed in coffee plantation fields, rural footpaths, and village trails. Statistics were difficult to obtain. The system for reporting information from the rural areas was poor because the ESAF Medical Service did not keep records of land mine injuries until 1984. However, it was estimated that extremity injuries caused by land mines each month numbered approximately 55 in soldiers and 20 in civilians. A Professional Rehabilitation Center of the ESAF, staffed with occupational and physical therapists, was inaugurated in

1985 to provide for the rehabilitation of physically handicapped soldiers (Figure 24-7). Many of the Salvadoran military veterans trained by the center to manufacture and fit prostheses were themselves amputees. With the help of these veteran workers, victims now replaced makeshift hand-tooled devices with professionally made prosthetics (Figure 24-8). Despite the efforts of this center and its staff, by 1987 the number of amputees numbered about 1,500 with only a quarter of them fitted with prostheses. Furthermore, children and adolescents accounted for a quarter to a third of these amputees.<sup>44</sup> In response to this obvious need, USAID made a \$500,000 grant in 1987 to subsidize a nonprofit organization to provide artificial limbs for civilian amputees.<sup>45,46</sup>

The ESAF programs in preventive medicine and field sanitation initially were not as successful as the trauma care program. Constant attention to education and enforcement of standards was required for success. Often problems thought to be corrected resurfaced later because providing for basic health needs did not receive the necessary priority by line officers and medical personnel. As a result, special programs were designed to teach line officers the importance of preventive measures such as immunizations, malaria prophylaxis, and garrison sanitation. By 1986, all troops received a basic series of vaccinations to include rabies if stationed in an endemic area. Malaria prophylaxis decreased the in-



**Fig. 24-7.** Former Salvadoran soldiers previously injured by mines are shown in a rehabilitation center that was developed using the Security Assistance Program that allowed training of foreign nationals. Several amputees became members of special soccer teams. Photograph: Courtesy of Russ Zajtchuk, MD. Reproduced with permission from *Military Medicine: International Journal of AMSUS*. 1989;154(2):60.



cidence of this disease in units observing this regimen, contributing to greater unit readiness.

Another important aspect of the medical exchange project was the foreign military observership program.<sup>42</sup> El Salvadoran medical personnel were able to secure a 6-month rotation with a clinical or laboratory service at US Army hospitals. This was strictly a government-to-government exchange with funding provided by the IMET program using Security Assistance Program funds. These personnel were given the opportunity to observe at a US medical facility in a specific medical discipline if they met qualifying standards. For example, a plastic surgeon would benefit from a rotation at the US Army Burn Unit, Brooke Army Medical Center, San Antonio, Texas, whereas an infectious disease doctor would benefit by rotations with their medical counterparts at other military hospitals. The personal and professional benefits obtained for both the individual physicians and their countries were rewarding and served to further develop mutual respect and understanding.



**Fig. 24-8.** Former Salvadoran soldiers, who had sustained combat injuries, were trained to manufacture prostheses for patients sustaining land mine injuries. American and Salvadoran teams jointly developed this facility. Photograph: Courtesy of Russ Zajtchuk, MD. Reproduced with permission from *Military Medicine: International Journal of AMSUS*. 1989;154(2):60.

The US Army Medical Department also derived benefits from the experiences gained by rotating US military medical personnel in El Salvador. Individual physician specialists were requested by the host country and rotated for 45 to 90 days at the large military hospital at the capital, San Salvador. Since the end of the war in Vietnam, active duty US medical personnel have rarely had the opportunity to work with US war casualties. During their rotations to Central America medical personnel had experience with war trauma patients and also had the opportunity to work with and train their Salvadoran medical colleagues in US surgical practices. This experience was valuable in improving readiness skills in combat surgery and pre- and postoperative care, skills rarely practiced in the peacetime US Army. This integrated medical assistance program in El Salvador was of benefit to both the people and government of El Salvador. In particular, the Salvadoran government, in accepting the integrated Security Assistance Program, improved their military healthcare system within a short period of time. The Department of State and the Department of Defense, in concert with support from the US Congress, was largely responsible for the success of this program. The acceptance and expansion of the program is demonstrated by the fact that from 1983 to 1987, program expenditures increased from \$350,000 to \$14.2 million.<sup>33</sup>

In review, the role and value of medicine in several programs in El Salvador has been shown. The form requiring the least coordination was the ESAF medical civic action projects done in conjunction with their military exercises in rural areas. This most uniformly conformed to the intentions of the first documented civic action programs as described by Magsaysay in the Philippines. The goals and purposes of these original programs, in providing rudimentary healthcare to rural populations, was to improve the interactions of the military with rural populations while performing humanitarian assistance activities.

By far the most remarkable benefit of the medical programs was in developing a *de novo* infrastructure for military healthcare that was used by military and civilian alike. The advances in trauma surgery and care, as well as preventive medicine improvements for the soldier, saved both civilian and military lives.

### Project Coordination and Accountability

These US Department of Defense humanitarian missions in Central American come under the purview of the CINC, SOUTHCOM, whose responsi-

bilities include early coordination of proposed H/CA projects with the US Embassy country team, as well as the country USAID officer. The Bureau of Politico-Military Affairs of the Department of State and the Bureau for Program and Policy Coordination in USAID review, comment, and act as the final approving authority before submission to the CINC, SOUTHCOM. Once a project has been completed, all approved project after-action reports of these various agencies are again coordinated. From this process a final report is generated and submitted to the US Congress by each March 1st for the previous fiscal year. The report includes: (a) a list

of countries in which humanitarian and civic assistance activities were carried out; (b) the type and description of such activities carried out in each country; and (c) the amount spent carrying out each activity in each country.<sup>47</sup> Despite this structure and project accounting, the medical humanitarian role within the Department of Defense Civic Action Programs remains a controversial issue for the reasons discussed in the introduction to this chapter. I would hope that in the future this controversy could be replaced with a more realistic assessment of the place of these program in the overall doctrine and mission of US foreign policy.

## THE IMPACT OF HUMANITARIAN ASSISTANCE IN CENTRAL AMERICA

### The Benefits of Humanitarian Assistance for Host Countries

By the time I left Honduras in September 1985, the DoD humanitarian assistance programs were well established. In the years since then they have continued much as they were in terms of the goals and program structure, although they have increased in size somewhat. The following comments regarding the benefits of these programs for both the United States and the host countries are based on my own observations, but are no doubt as true today as they were then.

The US medical training exercises in Honduras in the form of rural medical missions and the deployment for training exercises are positive examples of the use of medicine to assist host countries when the United States has a continued military presence. The interactions have been extremely beneficial to the civilian community. For example, the country vaccination program (Figure 24-9) in Honduras has been a remarkable success story. With the US Army air logistic support, the joint medical training exercises were combined with the country vaccination program between 1983 and 1992, administering 800,000 doses each of DPT (diphtheria, pertussis, tetanus), polio, measles, and BCG (Bacillus of Calmette and Guérin, ie, tuberculosis) vaccines.<sup>48</sup> A report indicated that over 91% of all children under the age of one had been given these vaccinations.<sup>49</sup> The outcome was better than in some regions of the United States in the same time frame.<sup>49</sup> In the training exercises, lectures are given in sanitation, primary healthcare, and nutrition. Educational charts from the Ministry of Health are left with the teacher as a repetitive teaching aid. This is the first step to improving rural health levels. The Ministry of Health is given the disease survey from the villages in order to plan for medical resources

and providing care. Honduran healthcare providers, previously unable to reach this rural population, can appreciate better the rural healthcare needs of their nation (Figure 24-10).

US medicine influenced both military and public healthcare and in working collaboratively, provided the foundation to support specific Ministry of Health policies. The original unintended consequences of medical assistance associated with military deployments, and the gradual incorporation of a recognized role of humanitarian assistance in military deployments, as implemented in Honduras, seems to approximate the goals and intentions of the original concepts of nation building.



**Fig. 24-9.** A US military physician initiates a general medical examination of school children before receiving routine childhood immunizations. Photograph: Courtesy of Joan Zajtchuk, MD, from the combined collection of photographs taken by members of Joint Task Force Bravo, Honduras (1983–1985).



## Some Problems Associated With Humanitarian Assistance

Despite the good intentions association with these humanitarian assistance missions, there have been problems. Some derive from the concept itself, some from the implementation of the concept by US forces, some from the failure to coordinate with the host country, and finally some from the mischaracterization of the exercises as civic action. These will be discussed each in turn.

### *Misunderstanding the Concept of Humanitarian Assistance*

The humanitarian assistance label was applied to the medical readiness training exercises (MED-RETES). Medical Element work in hospitals and rural medical training missions both provide healthcare to the local population. By law, expend-

able medical supplies from US facilities can be used in these joint missions. Unfortunately, the characterization of “expendable” supplies can contribute to a “hand out” mentality on the part of the US medical personnel involved in these programs. By seeing these supplies as not needed by US forces, it is easy for medical personnel to see the recipients of these supplies as “needy,” and therefore they may be viewed in a less than positive way. Furthermore, such a misunderstanding of the concept of humanitarian assistance not only lessens the value of the recipient as a person but it tends to induce the “giver” to ignore the long-term benefits of these programs for supporting US government policy and that of the host countries.<sup>37</sup>

### *Inadequately Implementing “Humanitarian Assistance”*

When the humanitarian assistance label is affixed to the medical readiness training exercises it tends to associate US efforts with superficial and uncoordinated care. Civic action missions satisfy only a short-term goal, especially if not planned and coordinated within the healthcare system of the country. For instance, early criticism by members of the Peace Corps addressed a lack of sensitivity in dealing with the local civilian populations.<sup>50</sup> This criticism was also directed to the temporary nature of the treatment provided to the sick (deworming, antibiotic treatment, dermatologic care). There is some truth to this statement but the outreach program is just the beginning of future work that must be done by the country’s healthcare system. Furthermore, this future work must be coordinated with all the aspects of a country’s healthcare infrastructure. For example, in Honduras, just as in the United States, many areas are so remote that their populations cannot get to medical care. Other groups live closer in but are in impoverished urban settings where healthcare professionals do not usually establish facilities. Additionally, in Honduras an overproduction of physicians each year was flooding the market. An interesting solution to these problems was to use the excessive physician capacity to meet the accessibility issues of the underserved population. Thus, after the required year of social service work in a regional hospital or clinic, there was mandatory service to the public hospitals in the mornings with private practice permitted in the afternoon. The increasing awareness of Honduran healthcare workers of the poor healthcare status in the rural areas and overpopulated urban areas serves to sensitize their thinking and facilitate reforms in national healthcare.



**Fig. 24-10.** Honduran villagers wait in a schoolyard for immunizations by humanitarian assistance team consisting of US military and Honduran military and civilian medical personnel from the Ministry of Health. The Ministry of Health provided the vaccines. Lectures were given in basic hygiene using Ministry of Health teaching charts. These charts were given to the village schoolteacher. Photograph: Courtesy of Joan Zajтчuk, MD, from the combined collection of photographs taken by members of Joint Task Force Bravo, Honduras (1983–1985).

### ***Limited Coordination With Other Caregivers***

An example of counterproductive efforts due to limited coordination with other caregivers was that of the US Army Special Forces in medical training exercises in Honduras in the mid-1980s. Their stand-alone exercises were planned with a short lead-time and were not coordinated with the plans of the US Army medical element, the Honduran Ministry of Health, or the Honduran Army. Last minute requests to support a Special Forces mission was often at the expense of the long-term program<sup>51</sup> and after a while these requests were disapproved. The Honduran military and civilian health authorities came to view the Special Forces as this “other” Army. Criticism by the medical element staff also involved how long it took the Special Forces to replace medical materiel that they had “borrowed.” The medical element commander and command surgeon had no jurisdiction over the quality of healthcare provided by the Special Forces and therefore could not integrate their role into the long-range program. The Special Forces, by using their medics in the role of independent healthcare professionals, placed the Honduran doctors in a less favorable light, as well as influencing the Honduran perception of the overall medical mission of the US Army. With coordination, planning, and sensitivity to the overall picture, these problems could have been minimized, and the contribution of the Special Forces medics could have been maximized. Just because an effort is a training mission does not mean that it cannot be coordinated with other agencies.

### ***Misidentifying a Training Exercise as a “Civic Action” Project***

The designation of the training exercises with the misnomer “civic action” creates a limited definition to the exercise that falls short of US goals. As a result, DoD humanitarian assistance task force members, military group commanders, and others may

expect unrealistic requirements to be satisfied by these exercises. Because of the small size and organization of the Honduran Army Medical Department, it was impossible for them to ideally support the large number of training exercises. According to Colonel R. Zajtchuk, the commander of the 41st Support Hospital, the US Joint Task Force Commander (Honduras) implied in 1984 that these exercises were failing because of the infrequent and inadequate support of the Honduran Army.<sup>36</sup>

The task force commander also believed that support of these activities should consist of one-third Honduran military, one-third Honduran civilian, and one-third US military personnel. However, the original concept of military civic action developed in the 1960s predicated military involvement *only* if it did not detract from a readiness mission. In this case due to the small size of the Honduran armed forces it was virtually impossible to support all US medical element missions as well as satisfy its own medical needs. Nonetheless, this same criticism was voiced by the Assistant for Civil Military Operations at Special Operations Command regarding Honduran Army participation with the medical and engineer training exercises.<sup>51</sup> Should the number of medical missions be decreased because of this impossible standard regarding degree of host country participation? It is my opinion that the answer to this question must be “no.” The important issue is that the criteria of training are met by US involvement. Any other limiting criteria that are imposed by the United States to meet a hypothetical definition of civic action is counterproductive to the US training mission and the US long-term contributions to the Honduran health system.

Despite the problems and limitations associated with these medical missions, it remains in the best interest of the United States to continue these missions. As long as the missions provide realistic training for military medical professionals and are of benefit to the host nation, they will continue to help stabilize and further relationships between the United States and its allies.

## **THE PRESENT AND FUTURE OF NATION BUILDING (2001)**

In recent years, intergovernmental agencies such as the United Nations have often requested military humanitarian assistance for member nations. Examples of these situations include the civil conflicts in Somalia (Exhibit 24-7) and the Balkans, where the affected populations required large-scale logistical operations beyond the capabilities of nongovernmental relief organizations (NGOs). The military forces sent in for these missions must establish a

secure base of operations as the first public health priority in areas experiencing armed conflict. Among these military forces, the DoD has exceptional capabilities to conduct these missions. In addition to its security and logistical capabilities, it has strong operational and research capabilities in the field of preventive medicine. Many of these capabilities were developed for use in austere field conditions that closely mirror the situations likely



to be found in disasters or civil conflicts.

To date, more than 100 countries worldwide have benefited from DoD humanitarian or civic assistance and from foreign disaster relief programs that are operationally administered by the Office of the Deputy Assistant Secretary of Defense for Global Affairs. Numerous DoD components including the Joint Staff, the Air Mobility Command, and the regional commanders continue to be instrumental in shaping the character and delivery of humanitarian assistance programs. Since 1986, the DoD has held the charter for all major humanitarian assistance programs conducted by the United States. Most of these authorizations for humanitarian assistance have subsequently been codified (Title 10, United States Code). As a result, the success, efficiency, and appropriateness of uniformed-service relief operations often depend on how knowledgeable their medical personnel are in understanding the legislative limitations of delegated authorities to implement these programs.

At present the Department of Defense Humanitarian Civic Assistance (H/CA) programs continue to provide a means to shape the security environment and prepare for and respond to humanitarian crises. Since 1996, the DoD has been authorized to fund a wider variety of H/CA activities, including the use of contractors and the deployment of US military personnel to conduct specific humanitarian projects. This authorization stated that the pri-

mary purpose of H/CA projects must be directed to the humanitarian benefit of foreign nationals and must address basic humanitarian needs. The benefit to the DoD is through its interactions with the host nations and through opportunities to increase host-nation capabilities in humanitarian responses. Assistance under this program may not be provided directly or indirectly to any individual, group, or organization engaged in military or paramilitary activity.

H/CA projects include those that fall in the general categories provided by law: (a) the provision of medical, dental, and veterinary care in rural areas; (b) construction of rudimentary surface transport systems; (c) drilling of wells; (d) construction of basic sanitation facilities; and (e) rudimentary construction and repair of public facilities. Annual projects are identified by the US Embassy Country Teams who then submit their requests to their regional CINCs. The CINCs' plans are then submitted to the Office of the Secretary of Defense (OSD) for interagency review and coordination and implementation at the local level. The OSD submits a budget request for these programs as part of the president's annual budget, as well as providing annual policy and program guidance to the regional commanders.

These programs are executed on an annual basis and have congressional oversight through the allocation of specific funding to the various military services to support the incremental costs for mate-

## **EXHIBIT 24-7**

### **GROUND TROOPS IN SOMALIA**

Since the end of the Cold War, uniformed service personnel have been assigned to many international relief organizations, including the World Health Organization (WHO) and the United Nations Children's Relief Fund (UNICEF). The relationship between uniformed service personnel and international relief organizations and agencies was particularly useful during the humanitarian assistance in Somalia where UNICEF coordinated and often provided a central clearinghouse for relief agency activities. Uniformed service medical officers served as consultants to UNICEF during this operation and provided important technical assistance.

A more recent project, the 1994 use of ground troops in Somalia, is an example of how the Department of Defense' humanitarian assistance role in developing countries is a consideration in using US ground troops. The goal, short term in nature, was to secure an immediate base of operations so that relief organizations could become effective in food distribution and the provision of medical care. The population of Somalia had been devastated by disease and starvation because the ongoing civil war between rival clan leaders had prevented international relief agencies from meeting even the minimal public health needs of the populace. "Operation Restore Hope" implemented a policy that included (a) respect for the customs of the country and avoidance of any activity that might undermine local elders or clan leaders; (b) support of the existing healthcare structure in providing only necessary interventions that did not compete with or make obsolete the standards of local care; and (c) design of a system that remained supporting the local governmental bodies after the departure of the military forces. The intended goal, however, was never reached because of the inability to provide a secure base of operations within rival clan territories.

rials for the H/CA program. Currently, all military branches are active in DoD humanitarian assistance and disaster relief operations around the world. The Army allocates funding to the European Command (EUCOM) and the Southern Command (SOUTHCOM); the Navy funds the Pacific Command (PACOM), and the Air Force funds the Central Command (CENCOM). The Army is more heavily involved because of the greater numbers of deployments. National Guard and Reserve Units continue to play a prominent role in this effort, especially in SOUTHCOM.

For these uniformed-service humanitarian assistance operations to be successful from a public health perspective, the programs must become well integrated within the national infrastructure. One effective method for realizing such a goal involves the coordination of the services of the USAID with its subunits, the Bureau of Food and Humanitarian Assistance and the Office of US Foreign Disaster Assistance. The capabilities of USAID rank as one of the most significant, immediate, and long-term disaster relief instruments of the US government. Their services and programs, coordinated through the local US embassy or USAID mission, makes humanitarian assistance an important component of the US government's foreign policy.

Although most intergovernmental agencies and NGOs do not have the logistical or field medical capability of the military, they accomplish a great deal by focusing solely on improving public health conditions. Their public health role is seen as more acceptable than that of the DoD in performing a limited number of specialized activities (eg, deliver-

ing medical services, managing food distribution programs, or conducting an orderly migration or repatriation) and they have unique responsibilities and capabilities that are accepted by international organizations. The ability of the military to coordinate its roles with NGOs and the host country agencies will synergistically intensify the timeliness of the relief effort. Just as the military has standards of performance, NGOs have charters and guidelines to achieve expected results that are established by their governing boards. Commanders and uniformed-service medical personnel need to understand their roles in order to judge how best to complement the efforts of these organizations. In addition, uniformed-service personnel must be willing to coordinate their activities with NGOs and United Nations agencies because the military, at the time of their withdrawal, must transfer the relief-effort responsibilities to these organizations or to their host-country counterparts.

Any goal to expand the role of military medicine must include: (a) an examination of the moral and humanitarian principles; (b) an awareness of the value placed on the resultant good will; (c) knowledge of the former role that counterinsurgency strategy played; and (d) the reasons why humanitarian assistance efforts have failed in the past. As the planning for military participation continues, emphasis should be directed to the programming of sufficient funds to continue these projects. In addition, emphasis should be placed on providing closer alignments of health services efforts between DoD, other governmental agencies and NGOs, and ultimately to the host-country infrastructure.

## CONCLUSION

The Vietnam experience demonstrated that to conduct successful humanitarian civic action programs it is necessary to select and educate highly skilled behavioral personnel who are culturally enlightened and linguistically proficient. These individuals must possess the potential to remove themselves from traditional American cultural constraints and be able to perceive problems and their attendant solutions through the eyes of a foreign culture. They must have the training and intellectual breadth to understand the political, economic, social, and military institutions of the foreign nation, how they interact in meeting the needs of the people, and how to complement host nation programs. The ability of US personnel to understand the military and civilian structure and thought processes of the host-nation country is especially criti-

cal, in that the implementation of military civic action to their host-nation counterparts will be accomplished using these tools.

The Vietnam experience also demonstrated that during high-intensity conflict it may not be possible to institute effective humanitarian/civic action programs. These assistance programs will accomplish the most good in peaceful areas around the world or where the conflict is at low-intensity level. For a long-term nation building effort to be successful, the host nation must initiate the request and expect to share in the real costs of a successful program. Furthermore, care should be taken to assure that the US advisory role is progressively withdrawn as host government infrastructure programs reach the sustaining state.

American medicine is respected worldwide, and

the American ability to respond with aid in the event of natural or man-made disaster is beyond that of any nation. Although aid should not be administered indiscriminately, and there should be no attempt to do so, American ability to provide swift, effective humanitarian aid is one way in which this country can demonstrate that it is truly aware of the concerns of other nations. In particular, the United States should put its military medical structures—expressly designed for projecting US prowess anywhere in the world—at the disposal of nations considered to be in American strategic interests to support. The US military should operate as “high-technology” consultants, and if “hands-on” help is required, the response should be with deployments of limited duration, with the objective of ameliorating host-nation needs in a short-term crisis, and promoting the development of local capabilities to deal effectively with the situation after US forces depart.

The new and emerging role of military medicine assumes a new proactive and preclusive stance, entering potential preselected target population areas in conjunction with engineer, signal, civil affairs, and psychological operations before the tactical situation deteriorates to the point that open conflict commences and casualties begin to be generated. Strategies to begin to address the existing medical infrastructure of friendly nations include the use of mobile training teams paid for by foreign military sales, joint and international exercises conducted by US and friendly forces, emergency deployment readiness exercises conducted by US forces for limited periods of time as training exercises, and a reliance on technology to reduce people-intensive functions to a minimum.

Effective medical planning is critical in order to provide the task force commander with recommendations and programs necessary for success. It is essential that the responsibility for all medical planning rest with the task force surgeon and that efforts to provide military medical services to host country nationals by all others be coordinated through them. Strict coordination requirements preclude potentially counterproductive, ad hoc medical activity from taking place. A negative outcome of such activity may occur when the host country's expectations are raised by uncoordinated US medical civic action programs. When US forces depart, the host-nation government may be unable to meet the higher expectations of its citizens. Proper coordination of all medical activity includes existing host-nation military and civilian medical personnel and should provide an opportunity for follow-up exercises at the same sites and program evaluation.

The inclusion of host-nation healthcare professionals increases their capability to render future medical care themselves as well as provide the host nation with an opportunity to receive credit for providing healthcare services to its population. Additionally, uniformed service personnel must also coordinate their primary care medical activities with UN sponsored or nongovernmental agencies as much as possible. These relief agencies, in their recurring presence, will provide the long-term assistance.

There is a concern expressed by private and voluntary organizations in the United States regarding the DoD providing humanitarian assistance. These organizations point out that under the Geneva Conventions, which have come to provide the established international understanding of humanitarian assistance, only civilians, and not military medical personnel, have the right to provide this aid. They further note that providing humanitarian assistance for other military forces contradicts the purpose underlying this assistance. According to the Geneva Conventions, organizations are required to meet certain criteria in order to administer humanitarian assistance. The criteria stipulate that the aid is provided strictly on the basis of need and that the organizations provide guarantees of efficacy based on proven experience, independence from parties to the conflict, and are a recognized authority in the international community. These conditions would appear to preclude DoD from participation in the provision of humanitarian aid. It further appears that international custom and convention dictate that aid be provided to recipients in need and not to assist in accomplishing political objectives. It is inconsistent with the nature of humanitarian assistance, they argue, to condition its provision on achieving a cease-fire or on bringing warring parties to the negotiating table. I disagree with their argument. There are many instances in which only a military force can lay the groundwork for a long-term humanitarian effort, or in which only a military force can prevent the very circumstances that would, left unchecked, result in a full-blown humanitarian disaster. The results of civil conflicts in Somalia and the Balkans demonstrate that affected populations often require large-scale logistical operations. These operations may be of such a large scale and of such urgency that the infrastructure of the country cannot meet the demands. It is not prudent, nor is it humane, to preclude the Department of Defense, or military defense forces from other concerned nations under the UN charter, from helping in these situations. With careful coordination, military forces can be of

significant assistance to suffering populations around the world while at the same time maintaining their mission skills and readiness posture.

As the world becomes more of a global community due to the rapid increases in technology, especially communications technology, the pace and extent of humanitarian operations will increase. The United States and other nations are now increasingly deploying their military forces to worldwide regional conflicts. These nations appear to be becoming more cooperative in their efforts to solve

these foreign conflicts at a global problem-solving level. In the US government's commitment to support and enhance the humanitarian assistance role of military medicine in the face of increased global needs, the United States reinforces its historical values of assisting in foreign disaster relief efforts that has been without precedence over the last century. At the same time, having taken the lead in providing disaster relief efforts, it is important to look at some of the unintended consequences of these efforts. This is the subject of the next chapter.

## REFERENCES

1. Brandt DA. Physicians for human rights and the Kurdish refugee crisis. *JAMA*. 1994;271:745–746.
2. Byrd T. Disaster medicine: Towards a more rational approach. *Mil Med*. 1980;145:270–273.
3. Toole MJ. Military role in humanitarian relief in Somalia. *Lancet*. 1993;342:190–191.
4. Bina WF. US hospital ships: More public health, less high tech. *JAMA*. 1993;270:2927–2928.
5. Nunn S. Roles, missions under scrutiny. *Officer*. 1993;69:20–24.
6. Huntington S. New contingencies, old roles. *Joint Force Q*. 1993;2:38–43.
7. US Department of the Navy. *From the Sea, Preparing the Naval Service for the 21st Century*. Washington, DC: US GPO; 1991: 5.
8. National Security Council. *National Security Strategy of the United States*. Washington, DC: US GPO;1993: 14.
9. Dunlap CJ. The origins of the American military coup of 2012. *Parameters*. [US Army War College Q] 1992–1993;2:20–35.
10. Guiding principles on the right to humanitarian assistance. Presented at: Conference of International Institute of Humanitarian Law; September 1992; San Remo, Italy.
11. Code of Conduct for the International Red Cross and Red Crescent Movement and NGOs in Disaster Relief Steering Committee for Humanitarian Response, Geneva, 1993.
12. Foster GM. Postwar relief and America's sense of humanitarian mission. Subchap in: Disease in the aftermath of war: Disaster aid to Poland and Russia after World War I. In: Trask DF, ed. *The Demands of Humanity: Army Medical Disaster Relief*. Washington, DC: US Department of the Army, Center of Military History; 1982: 81–83.
13. Foster GM. Typhus in Poland. Subchap in: Disease in the aftermath of war: Disaster aid to Poland and Russia after World War I. In: Trask DF, ed. *The Demands of Humanity: Army Medical Disaster Relief*. Washington, DC: US Department of the Army, Center of Military History; 1982: 83–94.
14. Foster GM. Famine in Russia. Subchap in: Disease in the aftermath of war: Disaster aid to Poland and Russia after World War I. In: Trask DF, ed. *The Demands of Humanity: Army Medical Disaster Relief*. Washington, DC: US Department of the Army, Center of Military History; 1982: 94–98.
15. Foster GM. Confusion over the Army's disaster relief role, reevaluation and relief in the thirties, and toward new relief roles. Subchaps in: Relief role in transition assistance at home and abroad, 1918–1939. In: Trask DF, ed. *The Demands of Humanity: Army Medical Disaster Relief*. Washington, DC: US Department of the Army, Center of Military History; 1982: 99–126.



16. Foster GM. The Texas City explosion, creation of a federal relief bureaucracy, medical relief missions of the fifties and sixties, and federal reorganization and minor medical missions of the seventies. Subchaps in: Domestic assistance under civilian coordination, 1945–1976. In: Trask DF, ed. *The Demands of Humanity: Army Medical Disaster Relief*. Washington, DC: US Department of the Army, Center of Military History; 1982: 127–145.
17. Blaufarb DS. Communist rural insurgency. In: *The Counterinsurgency Era: US Doctrine and Performance, 1950 to the Present*. New York: Free Press; 1977: 1–21.
18. United States Congress. Senate Committee on Foreign Aid. *The President's Committee to Study the United States Military Assistance Program*. Washington, DC: GPO; 17 August 1959.
19. United States Congress. Senate Committee on Foreign Aid. *The President's Committee to Study the United States Military Assistance Program. Final Report*. Washington, DC: US GPO; 17 August 1959.
20. Glick BE. America's civic action program. Subchap in: *Peaceful Conflict: The Non-Military Use of the Military*. Harrisburg, Pa: Stackpole Books; 1967: 67–99.
21. Blaufarb DS. The Kennedy crucible. In: *The Counterinsurgency Era: US Doctrine and Performance, 1950 to the Present*. New York: Free Press; 1977: 52–88.
22. Krepinevich AF. *The Army and Vietnam*. Baltimore, Md: Johns Hopkins University Press; 1986: 17–36.
23. Blaufarb DS. The revival of counterinsurgency: Vietnam, 1963–1967. In: *The Counterinsurgency Era: US Doctrine and Performance, 1950 to the Present*. New York: Free Press; 1977: 205–242.
24. Foster GM. Activism abroad: Foreign disaster relief, 1945–1976. In: Trask DF, ed. *The Demands of Humanity: Army Medical Disaster Relief*. Washington, DC: US Department of the Army, Center of Military History; 1982: 146–174.
25. *Nation Building Contributions of the Army*. Washington, DC: Deputy Chief of Staff for Military Operations, 14 September 1968.
26. Herrington SA. *Silence Was a Weapon: The Vietnam War in the Villages*. Novato, Calif: Presidio Press; 1982.
27. McCollum JK. CORDS: Matrix for peace in Vietnam. *Army Magazine*. July 1982:51.
28. Clark PG. *American Aid for Development*. New York: Praeger Publishers; 1972.
29. Surgeon General's Report on Lt. Gen. Leonard Heaton [former commander of Walter Reed from 1953 to 1959, Army Surgeon General from 1959 to 1969]. Washington DC: Office of the Surgeon General.
30. Doctrine was reviewed by author, Joan Zajтчuk, MD.
31. Young EJ. El Salvador: Communist blueprint for insurgency in Central America. *Conflict*. 1985;5(4): 307–336.
32. US Department of State. *The Guerilla Movement in El Salvador*. Washington, DC: US Department of State Pamphlet; July 1987.
33. Zajтчuk R, Brown FW, Rumbaugh JH. Medical success in El Salvador. *Mil Med*. 1989;154:59–61.
34. Elliot RF. *US Army Humanitarian Medical Assistance in El Salvador* [A report written by Colonel Robert F. Elliott, MS, USA, Deputy Chief of First Medical Assistance Team to El Salvador]. January 1988; 6–8.
35. Armed Service Committee May 1983 testimony as recounted in the author's interview with General Gorman, March 20, 1991.
36. Author interview of [then] COL Russ Zajтчuk, Commander of 41st Combat Support Hospital (1983–1984) on January 21, 1999, as well as recounted personal experience of interviewee.

37. Personal interview of Dr. Robert K. Wolthuis, Director, Office of Humanitarian Assistance, Office of the Assistant Secretary of Defense, Washington, DC 20301-2400, 9 January 1991.
38. Personal experience of author, Joan Zajtchuk, MD.
39. GAO Report to Congress on Military Medical Activities in Honduras, May 1984.
40. Command Briefing: The DoD Humanitarian Assistance Program. Presented at the Third Annual Department of Defense Humanitarian Assistance Conference, Office of Humanitarian Assistance, Office of the Secretary of Defense, Washington, DC. 11–12 January 1989.
41. Inter-American Defense Board. *Work of the Armed Forces in the Economic and Social Development of the Countries (Military Civic Action)*. 8 June 1965 [internal unclassified publication]. Available from Clearinghouse for Federal Scientific & Technical Information, Springfield, Va.
42. Rumsey S. *Army Medical Department (AMEDD) Participation in International Programs* (Information Paper). Washington, DC: Office of the Army Surgeon, International Programs; 24 February 1989.
43. El Salvadoran Army Pamphlet. *Conoce Las Minas? Campana Civica de Prevencion Contra las Minas Terroristas*. Fuerza Armada de El Salvador.
44. Information paper by Colonel Russ Zajtchuk, 8 January 1987, Chief of Consultant's Division and Deputy to Chief of Medical Corps at the Office of The Surgeon General on SUBJECT: Medical Mobile Training Team El Salvador, 1983 to Present.
45. Kenevan RJ, Thrill FA, Ortiz T, Rodriguez MA. Medical mobile training team 1983–1985 in El Salvador. *Mil Med*. 1988;153:11–13.
46. US Department of State. Publication 9554, Bureau of Inter-American Affairs, Office of Public Diplomacy for Latin American and the Caribbean. Latin America Dispatch, July, 1987.
47. Available at: <http://www.ciponline.org/facts/hca.htm>. Accessed 6 December 2001.
48. Statistics provided to Army Surgeon General's Office in 1992, compiled by R. Zajtchuk.
49. Vaccination record in US falls sharply. *Washington Post*. 24 March 1991:A1, A22, A23. (Statistics compiled by the Centers for Disease Control).
50. Swenarski L. When the Peace Corps meets the Army in a distant land. *Army*. July 1987:16–20.
51. Unclassified Memorandum for Assistant Secretary of Defense for Special Operations and Low Intensity Conflict. SUBJECT: Honduras Trip Report—ACTION MEMORANDUM, February 1990, Prepared by Lieutenant Colonel Paul M. Mikesch, USAR, Assistant for Civil-Military Operations, Missions and Applications, Office of the Assistant Secretary of Defense, Washington, DC 20301-2500.

# Chapter 25

## MILITARY HUMANITARIAN ASSISTANCE: THE PITFALLS AND PROMISE OF GOOD INTENTIONS

ELSPETH CAMERON RITCHIE, MD<sup>\*</sup>; AND ROBERT L. MOTT, MD, MPH<sup>†</sup>

---

### INTRODUCTION

Types of US Military Humanitarian Missions  
Why Is the US Military Involved in Humanitarian Assistance?

### PEACETIME ENGAGEMENT PROJECTS AND DISASTER RELIEF OPERATIONS

Peacetime Engagement Projects: The Planned Provision of Care  
The Pitfalls of Peacetime Engagement Projects  
Establishing Quality Peacetime Engagement Projects  
Disaster Relief Operations: Meeting Emergent Needs

### CONFLICT-RELATED CONTINGENCY OPERATIONS

Aspects of Providing Civilian Medical Care During Contingency Operations  
Balancing Allocation of Medical Resources  
Establishing Mission Priorities and Their Implementation  
Increasing Security in Conflict-Related Contingency Operations

### "TAKING CARE OF" THE CAREGIVERS

### CONCLUSION

<sup>\*</sup>Lieutenant Colonel, Medical Corps, United States Army; formerly, Executive Officer, 528th Combat Stress Control Unit, Mogadishu, Somalia; formerly, Chief, Forensic Psychiatry, Walter Reed Health Care System, Washington, DC; currently, Program Director, Mental Health Policy and Women's Health Issues, Office of the Secretary of Defense, Health Affairs, Skyline 5, Suite 601, 5111 Leesburg Pike, Falls Church, Virginia 22041-3206

<sup>†</sup>Major, Medical Corps, United States Army; formerly, Civil-Military Policy Analyst, Medical Humanitarian Assistance Policy and Programs, Office of the Secretary of Defense, The Pentagon, Washington, DC; currently, Deputy Director, General Preventive Medicine Residency, United States Army Center for Health Promotion and Preventive Medicine, Walter Reed Army Institute of Research, Building 503, Silver Spring, Maryland 20910-7500



Joseph Hirsch

*Safe*

Cassino, Italy

A Medical Corpsman comforting two orphans. This sketch, from the Mediterranean Theater of Operations, exemplifies the ideals of humanitarian missions. This chapter highlights some of the pitfalls of these missions, in order to avoid tragedy in future situations.

Art: Courtesy of Army Art Collection, US Army Center of Military History, Washington, DC. Available at: <http://www.armymedicine.army.mil/history/art/mto.htm>.



## INTRODUCTION

The United States military is routinely deployed around the globe to conduct a broad spectrum of missions. These missions range from peacetime engagement or “development” projects at one extreme to major theater wartime operations at the other. Within each of these missions, military medical professionals may be called on to provide aid to civilians. There is a rich history of direct military aid to civilians as described in the previous chapter. Given the end of the Cold War and the US military’s increasing involvement in military operations other than war (MOOTW), the issues inherent in providing medical assistance to indigenous populations will become increasingly important to commanders and medical planners.

The benefit of military medical forces providing assistance to injured, sick, and wounded civilians seems obvious. In many operations, there is a suffering population that is in desperate need of medical assistance. Some of these individuals may have been injured, intentionally or not, by US forces. Other individuals represent the range of human afflictions found in any area that has been lacking adequate medical care for a prolonged period.

But there are potential pitfalls, often not considered, to providing this assistance. Many military clinicians increasingly question whether the tenet to “first, do no harm” is being followed when the United States military provides medical assistance to developing countries. It is troubling to ponder the possibility that individuals or a population might be worse off *after* receiving American military medical assistance.

Although there is a long history of militaries providing humanitarian assistance to suffering populations, there is a dearth of international law, policy guidance, and doctrine for the types of complex operations that military medical planners and professionals face. Much of the “Law of War,” as codified by the Geneva Convention of 1947 and the subsequent Protocols, does not apply to contemporary armed conflicts.<sup>1,2</sup> Usually the warring parties are not sovereign nations (typical of past conflicts) but ethnic minorities or religious factions fighting within the borders of a single country. There is little guidance available for the physician or other healthcare professional to follow on how to ethically prioritize medical care in conflicts in the post-Cold-War era. Different military services and different nations often have little, or conflicting, guidance on whom to treat.

Most American physicians, including those in the military, are not aware of the potentially serious problems caused by inappropriate humanitarian

aid. This chapter outlines basic ethical questions encountered in humanitarian operations, namely those questions involving who military healthcare professionals will treat, what care will be provided, and the ramifications of providing that care. Both the potential pros and cons of providing medical assistance will be presented. The chapter is intended to help guide the physician, medical decision planner, and the commander, using case studies to illustrate these dilemmas. Some of the case studies are factual; others have been modified to illustrate an ethical dilemma. Few absolute answers can be given because situations vary depending on resources, need, and the tactical and political situation. Although this chapter raises concerns about the conduct of certain humanitarian projects, it should not be viewed as an indictment of military humanitarian assistance programs.

### Types of US Military Humanitarian Missions

Humanitarian missions can be divided into two broad categories: (1) operations where the primary medical goal is the care of civilians and (2) operations where the care of military personnel is the focus of military medics (Exhibit 25-1). Each of these missions can involve the direct care of civilians even though the underlying goals, circumstances, and ethical challenges may differ greatly.

#### EXHIBIT 25-1

##### TYPES OF US MILITARY MEDICAL OPERATIONS

Operations where the primary medical goal is the care of civilians

- Peacetime engagement programs (such as MEDCAPs [Medical Civic Action Programs])
- Disaster relief
- Dislocated civilian/refugee operations
- Noncombatant evacuation order (NEO) operations

Operations where the primary medical goal is the care of military forces

- War/combat operations
- Peacekeeping

### **Peacetime Engagement Projects and Disaster Relief Operations**

Peacetime engagement projects (authorized under Title 10 US Code, Section 401) are principally intended as training missions for US military forces while also providing nonthreatening engagement opportunities with foreign nations. By statute, medical activities authorized by Section 401 are limited to the provision of medical care in rural areas of a country. These projects are variously referred to as Medical Civic Action Programs (MEDCAPs) and Medical Readiness Training Exercises (MEDRETEs). A number of papers have been written detailing the conduct of these activities, the benefits derived, and some of the ethical and operational issues encountered.<sup>3-7</sup> Some of these issues will be explored in more detail later in this chapter. Disaster relief operations are technically contingency operations. However, because the primary goal of these missions is to provide relief to the local population, the ethical issues raised are more closely aligned to peacetime engagement projects.

### **Conflict-Related Contingency Operations**

In international contingency operations the US military may, under Title 10 US Code, Section 2551 (which permits the Department of Defense [DoD] to use funds for “other humanitarian purposes worldwide”), provide assistance to civilians. US military medical assistance to civilians may be central to the mission, as in complex humanitarian emergencies, or it may be provided on an as-available basis during more typical military operations.

Military forces rarely have primary responsibility for the care of civilians, especially in operations that fall short of war. Instead, civilian governmental, nongovernmental organizations (NGOs), and international organizations (IOs) have the lead for both development and relief activities. The United States Department of State, the US Agency for International Development (USAID), and various United Nations agencies are major providers of humanitarian aid. NGOs provide much of the manpower for on-the-ground relief and development programs while the military, if present at all, is generally in a supporting role. Some civilian aid organizations have been critical of military involvement in humanitarian operations even in a supporting role.<sup>8</sup> As an example, *Médecins Sans Frontières* [Doctors Without Borders] (MSF), a well-respected NGO, released the following as part of a 9 October 2001 press statement objecting to US military airdrops

of humanitarian supplies to civilians in Afghanistan in October of 2001. “Providing aid to vulnerable populations under the sway of armed factions in a politically charged climate is always very difficult. Ultimately it rests on demonstrating that the motives for helping are purely humanitarian and divorced from any ulterior political, military, or religious agenda....MSF is extremely concerned that there are clear risks in associating humanitarian aid with military operations. MSF believes strongly that for humanitarian aid to be effective, it must not be encumbered by political or military motives.”

### **Why Is the US Military Involved in Humanitarian Assistance?**

The primary missions of a military are to defend the homeland and protect national interests abroad. Some individuals and organizations in the United States as well as other countries assert that the military should not be involved in humanitarian or nation-building activities. They argue that a military is an inappropriate provider of humanitarian services and that humanitarian operations negatively impact the true military mission—fighting and winning the nation’s wars.<sup>9,10</sup> Why, then, is the US military increasingly called on to provide humanitarian aid? One answer is that nations have a moral imperative to assist people in need. In addition, these programs provide certain benefits to the United States while also benefiting, to some degree, the local population of these other countries. Other reasons for US military involvement in humanitarian activities include:

- humanitarian imperative,
- unique military capabilities,
- public relations,
- to legitimize military operations,
- engagement with a foreign government, and
- training for US forces.

Many governments have special nonmilitary agencies that are responsible for international disaster response. The Office of Foreign Disaster Assistance (OFDA) under USAID is the lead agency for the United States. However, these agencies may not be structured to handle massive humanitarian requirements without military assistance. Few organizations outside of the military have the capacity to quickly move materiel, establish secure routes for aid delivery, develop command and control mechanisms, and provide direct assistance. This is changing somewhat as civilian aid agencies increase

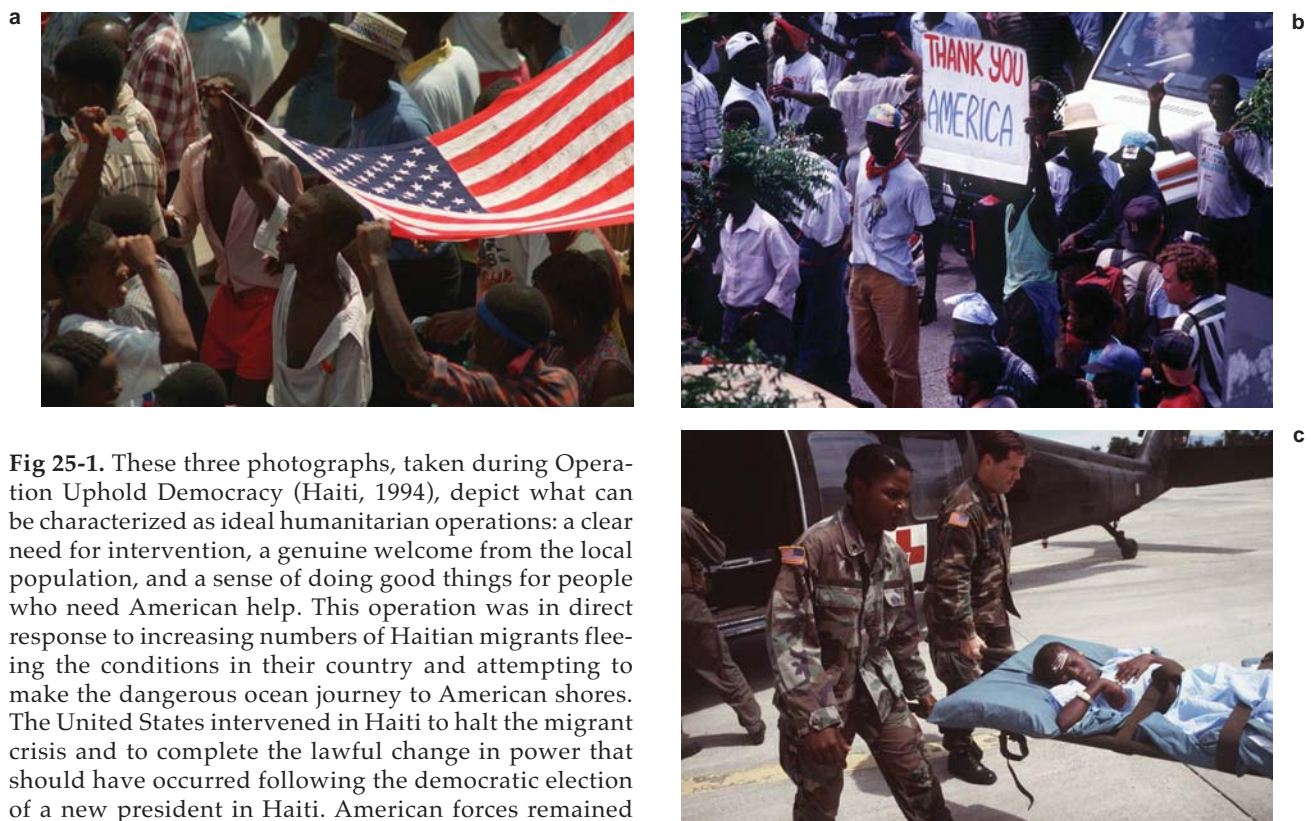
their logistics and communication capacities and as contract transportation assets become more available.

Even if these nonmilitary organizations have the necessary resources for these events, there may still be political pressure from various groups in the United States (for example, those with the same ethnic heritage as the affected group) on the US military to provide assistance as a show of American support. The humanitarian imperative also arises during combat operations. Military commanders and medical professionals often feel a moral obligation to assist the suffering civilian population, especially when they have the trained personnel

and medical equipment readily available.

Humanitarian operations also benefit the American political process by showing other countries the diverse American population working together to achieve common goals and thus improving global public relations. The deployment of military forces to assist with a foreign emergency is a very visible show of support for a foreign government and its people. In addition, there is the symbolism of a large military aircraft with an American flag on its tail unloading relief supplies. A photograph of a US medic caring for a needy child is equally compelling.

Healthcare for civilians may be used to legitimize



**Fig 25-1.** These three photographs, taken during Operation Uphold Democracy (Haiti, 1994), depict what can be characterized as ideal humanitarian operations: a clear need for intervention, a genuine welcome from the local population, and a sense of doing good things for people who need American help. This operation was in direct response to increasing numbers of Haitian migrants fleeing the conditions in their country and attempting to make the dangerous ocean journey to American shores. The United States intervened in Haiti to halt the migrant crisis and to complete the lawful change in power that should have occurred following the democratic election of a new president in Haiti. American forces remained in Haiti in the months following the change of power to assist in infrastructure development to ensure continued stability in the new democracy. (a) "Haitians run through the crowd at the Presidential Palace, Port-au-Prince, Haiti supporting the American involvement in the return of President Jean Bertrand Aristide on 15 October 1994." Image and caption: The DoD Joint Combat Camera Center (JCCC), American Forces Information Services, Assistant Secretary of Defense (Public Affairs). *US Forces in Haiti*, Image #220, JCCC Reference: J3107-SCN-94-20766. Combat camera photo by PH1 Robert N. Scoggin, US Navy. (b) "Outside the Port-au-Prince Airport, Haitians rally in support of American troops forcing out General Cedras and protecting their city's streets, at Port-au-Prince Airport, Haiti during Operation Uphold Democracy." Image and caption: The DoD Joint Combat Camera Center, American Forces Information Services, Assistant Secretary of Defense (Public Affairs). *US Forces in Haiti*, Image #276, JCCC Reference: J3107-SPT-94-20196. Combat camera photo by A1C Sean Worrell, US Air Force. (c) "'Sammy,' a Haitian child injured [the week before] in a grenade attack, arrives at the 5th Mobile Army Surgical Hospital (MASH) at Fort Bragg, North Carolina, where he will be reunited with his mother." Image and caption: The DoD Joint Combat Camera Center, American Forces Information Services, Assistant Secretary of Defense (Public Affairs). *US Forces in Haiti*, Image #305, JCCC Reference: J3107-SPT-94-20468. Combat camera photo by Spec Brian Gavin, US Army.



a military operation. Traditionally, informally the Special Forces medics treat the local populations in an attempt to win their “hearts and minds.” This grateful population may then, at least theoretically, be more likely to aid American interests, for instance by providing information about the whereabouts of the enemy. There is also the likelihood of damaging publicity and a loss of legitimacy if US medical personnel refuse to treat a dying child or an accident victim.

Medical engagement projects during peacetime are also a low-threat means of introducing a foreign nation to the US military. Medical engagement projects may be the first contact that a foreign government and military has with American forces and, if conducted well, may be a good way to break long-standing negative stereotypes. This is particularly true in countries previously aligned with former adversaries. Humanitarian deployments are a way of sending the message to the local population that their government is supported by the United States. These populations can then begin to see, in a tangible way, the benefits of a continuing relationship with the United States. This also can be a very satisfying experience for US military forces providing this assistance (Figure 25-1). Thus a successfully

conducted humanitarian deployment can be the first step in a long-term relationship that improves the everyday lives of the local population while providing training benefits to the US military. These humanitarian projects also provide an opportunity to teach and demonstrate key central principles of the US military to foreign governments and militaries. These principles include civilian control of the military and respect for human rights.

There are several types of training benefits to American military medical forces. The most readily apparent benefit comes from the fact that operations in developing countries, particularly those in the tropics, expose US healthcare professionals to diseases rarely seen in Western hospitals, such as tropical diseases, nutritional deficiencies, and advanced cancers. These missions permit medical units to practice real-world deployments, work with foreign military personnel, and operate in austere environments. Some units have used such deployments as a lab to develop new equipment and procedures.<sup>11</sup> Many National Guard and Reserve medical units also deploy on humanitarian missions because the missions are considered valuable training and retention tools.

## PEACETIME ENGAGEMENT PROJECTS AND DISASTER RELIEF OPERATIONS

Peacetime engagement projects and disaster relief operations are inherently different—one is planned, the other emergent—but they are discussed together in this chapter because the main focus of each is to provide humanitarian assistance to a civilian population. This differs from the contingency operations discussed in the next section where the main goal of medical assets is to provide care to military forces. Many criticisms described here are also valid for humanitarian assistance provided by nonmilitary organizations.

### Peacetime Engagement Projects: The Planned Provision of Care

Direct medical engagement projects involve the provision of acute medical care to people in rural areas of developing countries (Figure 25-2). Many of these MEDCAPs focus on primary care where several hundred patients are evaluated and treated per day for common illnesses and injuries. This is sometimes referred to as “tailgate medicine” because care is provided out of the back of a truck or within a local structure such as a school or small clinic. Tailgate MEDCAPs may also include dental care and optometry. Other MEDCAPs involve elective

surgical procedures such as cataract removal or cleft palate repair. The common elements of MEDCAPs are that they are primarily for the training of US military personnel, they are only a few days in duration, and they provide rudimentary care to patients in austere environments. Other medical engagement projects include the donation of excess DoD medical equipment, preventive medicine programs, and training for host nation providers.

### The Pitfalls of Peacetime Engagement Projects

Despite the putative benefits described above, the true value of military “peacetime engagement” activities is questioned for many reasons. Much of the criticism centers on the quality of the patient–physician relationship although there are larger programmatic concerns as well as questions about the actual training value for US medical personnel. These criticisms are summarized in Exhibit 25-2. The benefits derived from these missions may be offset if they are not carefully planned and executed, as the following case study illustrates:

**Case Study 25-1: A MEDCAP Exercise in Rural Africa.** A young Army physician was excited about a





**Fig. 25-2.** A Somali refugee camp outside the American compound illustrates the primitive condition of the camps, with huts of donated plastic tarps and no running water, electricity, sewage, or other basic necessities. Photograph: Courtesy of Lieutenant Colonel Elspeth Cameron Ritchie, MD.

MEDCAP exercise in rural Africa. “I was finally going to travel the world, see tropical diseases that I had only read about in textbooks, and provide medical care to people who had rarely, if ever, seen a doctor. But during the mission my excitement turned to frustration. I began to ques-

tion the quality of the care that I was able to provide and the long-term benefit to the population. I questioned my ability to make a correct diagnosis because of my limited expertise and our lack of lab and x-ray services. I also began to doubt the training value of the trip. I couldn’t

## **EXHIBIT 25-2**

### **THE PITFALLS OF PEACETIME ENGAGEMENT PROJECTS**

#### **Inability to establish an effective patient–physician relationship**

- Lack of knowledge of endemic diseases, may base diagnoses on “Western” medical experience
- Lack of knowledge of, or consideration for, local customs and beliefs
- Questionable patient understanding and compliance

#### **Constraints on the ability to provide quality diagnostic and medical care**

- Lack of diagnostic capabilities
- Nonmedical personnel often provide care
- Inadequate referral, continuity of care, and follow-up

#### **Inability to provide long-term assistance**

- Short-term focus
- Inadequate planning and coordination
- Disrupt local health care systems
- Underlying causes of disease not addressed
- Raise expectations, cause dissatisfaction with local medical resources
- Lack of evaluation

#### **Questionable training value for US military medical personnel**

- Treat more curious people than those with true disease
- Focus on quantity of patients seen instead of quality of care and training

differentiate a malaria case from a viral infection and we didn't have an experienced clinician on the team who could teach me how. The exercise commander didn't really care what we did as long as we kept the patient numbers up. Even if my diagnosis and treatment were correct, I had serious questions about my patients' ability to understand and follow my directions. I later discovered that other physicians had had similar experiences."

**Comment:** This young physician had been initially altruistic about his forthcoming MEDCAP, but was disappointed by the actual experience. It is likely that he shared his disillusionment with other physicians when he returned to his unit. Furthermore, this experience may have had long-term adverse consequences on his confidence in himself as a physician, and in the value of the mission. Better mission planning, combined with more realistic expectations, might have lessened his disillusionment.

This case study illustrates several dangers: (a) lack of knowledge of local diseases, (b) inadequate time to assess a patient, (c) no diagnostic facilities, and (d) poor communication with the patients. The problems inherent in a compromised patient–physician relationship are readily apparent.

### ***Inability to Establish an Effective Patient–Physician Relationship***

The patient–physician relationship is central to the delivery of quality medical care. (See Chapter 1, *The Moral Foundations of the Patient–Physician Relationship: The Essence of Medical Ethics*, for a further discussion of this relationship.) In Western medicine, the patient trusts that the physician has the proper training, experience, resources, and focus to provide the best quality of care possible. If the physician is unable to provide appropriate care because of inadequate experience or resources, the patient expects to be referred to a physician who can provide the proper care. Patients also may believe that their physician will be available to continue to care for them if there are problems with a prescribed treatment. The physician trusts the patient to provide an accurate history and to follow the treatment directions closely.

During MEDCAPs this "ideal" relationship does not, and cannot, exist. Most American-trained physicians are not experienced in diagnosing and treating many of the diseases of the developing world such as tropical diseases and nutritional deficiencies. Because of this, they are underqualified to diagnose and treat many of the problems that present during a MEDCAP. (This may be changing as more healthcare workers are trained in disaster or tropical medicine.) This is particularly true on missions where the diagnosis is based solely on a quick history and physical examination without the benefit

of lab or radiographic services. The following case study emphasizes this point:

**Case Study 25-2: Diagnosis of Local Diseases.** An American military surgeon in Vietnam was asked to see a middle-aged man who had high spiking fevers and episodes of generalized rigor. The surgeon evaluated this patient as he would have any patient he had seen in his years of medical practice. "On examination, I found diffuse tenderness all over but especially in the [lower] abdomen. Although we couldn't converse—no translator was around—I was in no doubt of the diagnosis: a perforated appendix. He needs a lap[arotomy]! So we went to the OR [operating room] and under general anesthesia I made a small right lower quadrant incision and found a normal appendix. An internist was available and made the suggestion that maybe the patient had malaria. I had never seen a case of malaria...and, of course, that was the right diagnosis."

**Comment:** This patient was fortunate that the internist on the scene had knowledge of local diseases and could readily spot malaria. If at all possible, American healthcare professionals in non-American settings should familiarize themselves as much as possible with local diseases, and should further seek out the knowledge or experience of the local medical establishment whenever possible.

The issue of "noncredentialed" or even nonmedical personnel providing care must also be addressed. Is it ethical for nonmedical personnel, such as Special Forces soldiers, to perform medical procedures on civilians such as starting intravenous (IV) fluids, performing minor surgery, or extracting teeth if they are not permitted to do this in the United States? Is it right for an enlisted medic to practice medicine independently without oversight by a licensed medical professional? These activities have been justified by the argument that the care that they provide is better than no care at all. Yet does this betray the trust of the patient if he believes a fully trained clinician is providing the care? We believe these practices are less than optimal because they provide substandard medical care. Furthermore, the local population and officials might reasonably expect that they are receiving "American medicine" and may be troubled if they learn that this is not the case. Sometimes, however, this may be the only care available in an emergency.

The patient side of the patient–physician relationship is also problematic during MEDCAPs. Language difficulties create obvious communication shortfalls. An interpreter, or even the patient, may also have difficulty answering a question such as, "How much does it hurt?" as the actual acknowledgment of pain may vary between cultures. Many people in underserved areas of the developing

world are unfamiliar with the basic concepts and phrases of Western medicine and may be unwilling or unable to discuss their symptoms in a way that the American physician can understand. Cultural differences and variations in medical knowledge and sophistication further complicate communication. Patient expectation of what the physician might want to hear can also impede effective diagnosis. Patient understanding, and thus informed consent, is often inadequate.

Compliance with medication, although usually unknown, is probably poor. Many of these patients may not be familiar with the different classes of drugs (analgesics, antiinflammatories, antibiotics, and so forth) or the different causes of disease (nutritional, bacterial, viral) and the most appropriate treatments for each. Pills may be swapped in favor of a different color or size without consideration of the actual purpose of the medication. Herbal-based local medical practices may exacerbate this, especially if local preparations of a certain color, size, or shape are “good” for local ailments. For example, a blue antibiotic that is contraindicated for a pregnant woman may be swapped for an orange antiinflammatory. Non-Western patients may also believe that if one pill is good then 20 must be better. Common, seemingly harmless medications such as acetaminophen and iron supplements can be fatal if taken in these quantities. Conversely, patients may only take a portion of their prescribed course of medication, stopping when symptoms resolve. The remaining medications may be saved for a future illness or perhaps for sale. Because the full course of medication is necessary to cure the illness, this practice could lead to inadequate therapy and the development of antibiotic resistance.

Unrealistic patient expectations can further complicate these already difficult patient–physician interactions. The following example illustrates several of these problems, including inadequate assessments, medicine swapping, and anger at the healthcare professionals when patients’ needs are not met. The unifying factor was the failure of effective communication.

**Case Study 25-3: “Good Intentions” Left in the Latrine.** A small medical team consisting of primary care clinicians, nurses, and enlisted medics deployed on a medical training exercise in rural Africa. After arriving in the village selected for the MEDCAP, the team leader met with village elders to gain their support and to ask that they “spread the word” that the American healthcare professionals would be seeing patients the next day. The team then set up a rudimentary outpatient clinic in the local school.

Early the next morning, the US providers were aston-

ished to find hundreds of people milling around the school waiting to be seen. Some of these patients had walked for hours to receive care. In order to evaluate as many people as possible the team decided to stop taking vital signs because it was taking too long. As more patients were seen, it became apparent that many of the patients were really more curious than actually sick. This was evident when entire families presented with the same vague, nonspecific chief complaint. Rapid patient histories and examinations were performed with the aid of an interpreter but doctor and patient understanding was often questionable. For example, when asked through the interpreter how many children she had, a mother responded back through the interpreter that her head hurt.

After brief history and physical examinations the clinicians made diagnoses without the aid of laboratory or imaging studies and then prescribed medication. The clinicians felt frustrated by their inability to accurately diagnose the causes of fever and abdominal pain. Only one of them had previously seen a case of malaria. Despite the fact that most patients were not particularly sick, they all nonetheless received some type of medication or a vitamin supplement. Multiple types of pills were routinely given to a single family, often consisting of antibiotics, pain and fever relievers, and vitamins. The pills were given to the head of household in small plastic bags with instructions written in English, which he was unlikely to be able to read.

In the midst of the crowd of curious and mildly ill patients were several patients who were genuinely quite ill, presenting with advanced or chronic conditions that could not be managed by the US providers. One man became quite angry when told that his crippling condition was beyond the scope of the MEDCAP’s capabilities. During a short break, one of the American providers witnessed two women trading medication, an antibiotic for an antiinflammatory. When asked about the exchange one woman responded that orange tablets have more magical power than the blue. The same provider later noticed a scattering of dark pills at the bottom of the school’s open pit latrine. The doctors later learned that black was seen as the color of death.

At 1600 the MEDCAP staff had to stop seeing patients in order to stay on schedule with the overall military exercise. Several dozen people became angry when they were turned away without being seen. A couple of rocks hit one of the MEDCAP vehicles as the team drove out of the village.

**Comment:** This case study typifies “good intentions” that didn’t translate into effective medical care. The village elders had certainly done what was asked of them, in terms of spreading the word that the American healthcare team would be available. There was, however, a lack of understanding as to who should be seen by such a team, or perhaps there was no lack of understanding, only an overriding curiosity. Once the masses had arrived, however, there was no effective mechanism for quickly sorting through them to locate the most seriously ill, or to ensure that everyone was seen, even if only momentarily. Nor was there was a mechanism for turning the curious



away. Finally, the healthcare professionals were unable to address the difference in cultural experiences of the providers vs the patients. The MEDCAP staff thus erred in assuming that their directions would or could be followed.

### ***Constraints on the Ability to Provide Quality Diagnostic and Medical Care***

There are programmatic concerns about engagement activities that are larger than the patient–physician relationship. These projects are often of very short duration and do not have a lasting impact.<sup>12</sup> Furthermore, even the short-term impact of a project may actually be more negative than positive. In Rwanda, for instance, an NGO hired away the few remaining medical staff (most had been slaughtered during the genocide) from the struggling governmental health care clinic.<sup>13</sup> In addition, a well-resourced and staffed MEDCAP might raise the medical expectations of the local population causing them to become dissatisfied with the standard of care that the host nation is usually able to provide. The donation of a large quantity of medications may seem beneficial but it may be counterproductive if local providers are unsure of its proper use or if the free medication competes with a struggling local pharmaceutical market. The local population may also come to believe that their medicine is not as good as the “American pills.”

### ***Inability to Provide Long-Term Assistance***

The attempts to gain the “hearts and minds” may also backfire. If Americans are perceived as treating only one clan, the others may be angry. Often the treating physicians are not aware of these clan affiliations. If the locals come to expect treatment and then the treating hospital pulls out or stops providing care, resentment may be created. Expectations of continuing treatment and convalescent care may be raised. Indeed, the local populations may expect “miracles,” or the treatment of conditions for which there is no cure, for example, some congenital malformations, some types of blindness, some debilitating chronic conditions, or terminal illness.

Another major issue is that acute care MEDCAPs often do not address the underlying causes of disease such as insect vectors, contaminated water, malnutrition, and poor sanitation and hygiene.<sup>12</sup> It may be futile or counterproductive for US military healthcare professionals to treat diseases caused by poor sanitation and hygiene without also addressing these underlying conditions as well. People may be less inclined to make preventive environmental

or behavioral changes when they know that there are curative treatments, even if they are temporary.

Finally, even if enormous volumes of patients are seen, some people may inevitably be turned away. Unfortunately, these may be the people who have traveled the furthest or waited the longest to receive care. It is easy to understand their anger if they do not receive care. This may alienate rather than make friends of the local population.

### ***Questionable Training Value for US Military Medical Personnel***

A major stated reason for conducting these medical humanitarian peacetime engagement projects is to train US military medical personnel to identify and treat unfamiliar diseases in austere environments. Unfortunately, many MEDCAPs are not designed for training. Instead they are geared toward generating large numbers of patient encounters to “show the host nation how much we care.” Time consuming diagnostic procedures may be set aside in the interest of the patient count. Teaching becomes much less pressing than seeing the hundreds of patients waiting outside. The fact that many of the “patients” are really reasonably healthy, and

#### **EXHIBIT 25-3**

#### **NECESSARY ACTIONS FOR A SUCCESSFUL MEDICAL HUMANITARIAN PROJECT**

- Coordinate project planning and implementation with other humanitarian organizations
- Consider and minimize unintended consequences of medical intervention
- Ensure “local ownership” of project to assist with communication, asset allocation, and background information necessary for successful project
- Provide quality medical services, including diagnostic assets
- Institute and maintain proper continuity of care, follow-up, and program evaluation
- Maximize training benefit, when appropriate, for US forces
- Provide necessary assets and training for program to be sustainable
- Build local capacity to ensure program continuity



they may make up a complaint just to see an American physician, makes the training value of many MEDCAPs less than ideal. Finally, many of these exercises lack any personnel who have experience with tropical diseases and this reduces the training benefit.

### **Establishing Quality Peacetime Engagement Programs**

US military medical planners at all levels of responsibility must take a leading role to insure that medical engagement projects provide excellent training for US forces while still providing quality medical care to local populations. Previously, Hood<sup>14</sup> and Luz and colleagues<sup>15</sup> described criteria that might be useful for planning, executing, and evaluating medical civic action programs. These and other criteria are summarized in Exhibit 25-3.

It should be obvious that a successful and ethical humanitarian mission should be centered on high-quality services. Yet as outlined above, problems such as limited resources, inexperienced planners and healthcare professionals, and command pressure to “get the numbers up,” all serve to reduce the quality of care provided.

Physicians should object strongly when quality of care is threatened unnecessarily by external factors such as patient counts and political favors. US military medical professionals must be trained, equipped, and provided the necessary resources to correctly diagnose and safely and ethically treat diseases that are within the scope of care of the project. Predeployment training on the diagnosis and management of endemic diseases should be mandatory.

Because the capabilities of the US medical professionals will usually be surpassed at some point during an exercise, it is critically important to have emergency and referral mechanisms in place before the project begins. This requires careful coordination with civilian medical providers and institutions. Project leaders should insist that experienced, competent host nation physicians work beside US military healthcare professionals on all MEDCAPs.

Coordination must also be made with officials at all levels of the host government as well as with local organizations that will likely be affected by the project, in order to benefit from their experience and to learn of potential problems that may be encountered during the planned project. Furthermore, coordinating the project with individuals and agencies within the community will provide that community with a sense of ownership of the project

and lessen problems that may arise. As the following case study illustrates, the limitations of the mission must also be stressed to the local population so it doesn't expect a small rudimentary MEDCAP to have the capabilities of a large American hospital.

**Case Study 25-4: Communicating MEDCAP Limitations to a Local Population.** A team of military primary care clinicians was conducting a small MEDCAP in a remote area, 1 hour by road from the nearest significant medical treatment facility. At midday, the pregnant wife of a district official was brought to the MEDCAP site hemorrhaging and in obvious distress. Her family had brought her to the MEDCAP instead of the local hospital because they felt the presence of US physicians would guarantee a high standard of care for this critical patient. Unfortunately, they did not understand that this MEDCAP project was not equipped for this type of emergency. Further, the US healthcare staff had not planned for life and death emergencies and thus referral procedures had not been established with the host nation providers. Because the MEDCAP team lacked the medical resources to care for this critical patient, she was sent on to the local hospital by truck, but died en route.

**Comment:** Before the arrival of a MEDCAP team, especially in a geographic area that has not experienced such an event in the recent past, it is desirable to familiarize local officials with the MEDCAP project and what the team will be doing. This might involve showing them photographs of the typical visit in order to convey the basics of the program: short duration, non-life-threatening situations with generally ambulatory patients. Had the family known in advance what the MEDCAP's team limitations were, the patient could have been taken to a more appropriate medical facility, and might have survived. (It is possible that in this case the woman's family might have still brought her to the MEDCAP, thinking that “American medicine” in any form was preferable to what was available at the nearest local hospital.)

When planning activities, it is important to consider local capabilities and customs to be certain that the patient-care activity or donated technology is appropriate. For example, it may be inappropriate for male US providers to examine or even speak to female patients. A village may lack the resources to operate or maintain a donated x-ray machine. It is certainly better to learn about and address these issues early in the planning cycle rather than during the mission. The best way to avoid pitfalls is through careful and detailed discussions with the people who will be receiving the services, if at all possible.

Projects should at least partially bring lasting benefit to the area beyond the brief time period of the project itself. This may involve installing a water pump to provide a supply of clean water in addi-

tion to providing acute medical care, or increasing the capacity of local medical providers and public health officials to address the ongoing needs of the population. Equipping a clinic and training local medical professionals to use and maintain that equipment is an example of a capacity building mission that has a lasting benefit to the community.

Finally, it is critical to consider unintended consequences during project planning and coordination in order to minimize potential problems. A “brainstorming” session should be conducted with local area experts to try to identify the ways that various parties might misinterpret a project and how the project might cause harm. Ways to mitigate those issues should then be identified. Discussing plans with local leaders, NGOs, and others will help to identify potential problems early. If significant problems cannot be adequately addressed then serious consideration should be given to canceling the project.

There are certainly MEDCAPs that do an excellent job of training US medical personnel and providing quality services. The missions organized by Joint Task Force-Bravo (JTF-B) in Honduras are one example. (Chapter 24, *Military Medicine in Humanitarian Missions*, describes this in some detail.) These missions are well-coordinated with the Honduran medical system in part because Honduran physicians are on the JTF-B staff. These individuals coordinate medical engagement activities with the Honduran Government and local providers. They also train and orient US staff members who rotate through Honduras on humanitarian missions. The ongoing presence of the JTF enhances emergency referral, patient follow-up, and continuity of care. Unfortunately JTF-B is a somewhat unique organization. Most other countries lack a similar long-term presence and that negatively affects their ability to plan, coordinate, and execute quality programs.

Surgically oriented MEDCAPs can also be very successful if they are well-planned, equipped, staffed, and coordinated. Cleft palate and cataract surgery are two procedures that provide long-term benefit to their patients while allowing the US surgeons to operate in an austere environment. Long-term relationships with host nation hospitals and physicians help guarantee appropriate cases and follow-up.

There are many lessons that US military healthcare professionals and planners have learned from their past experiences in providing peacetime medical humanitarian assistance. Some of these lessons are very obvious; others are not. Among these lessons are:

- Large MEDCAPs that deploy robust ancillary staff and services can do a better job than MEDCAPs that deploy small, under-resourced teams.
- Large MEDCAPs tend to be well-planned and coordinated; they attract more host nation support and direct participation.
- Small MEDCAPs can provide quality training and services with careful planning and coordination.
- The quality of patient care provided can be improved by teaming up with experienced local physicians in the outpatient service of a district hospital; choosing a hospital that has quality diagnostic services, a good mix of interesting cases, and experienced physicians who are interested in teaching increases the likelihood of a positive outcome for both patient and the healthcare professional.
- It is unnecessary, and often counterproductive, to advertise that US providers will be seeing patients; maintaining a low profile will help avoid huge numbers of patients and those who are more curious than sick.
- The educational experience and the quality of care is more important than the number of patients seen; if the MEDCAP commander and the host country understand that good training and quality services outweigh the fleeting benefit of a large patient count they will be more supportive of fewer patients being seen.
- If an “all-comer” MEDCAP is still mandated, it is best to implement careful triage and screening procedures to help insure quality patient care and a good training experience.

Dreher and Radoiu<sup>16</sup> describe patient triage and other procedures that were used on an optometry MEDCAPs in Central America to enhance training and patient care.

### **Disaster Relief Operations: Meeting Emergent Needs**

Even though disaster response has been a more traditional role for militaries than engagement or development activities, there are still pitfalls that may be encountered. The main problems include a lack of training and organization to properly manage disaster response, and the usual desire to provide the assistance directly rather than improving

the capacity of the local population to help themselves. This chapter will only briefly discuss military involvement in disaster relief operations because many of the ethical issues are similar to those in peacetime engagements.

Military medical units are often sent to major disasters to help the host nation care for victims and prevent the spread of disease. Unfortunately, because of their wartime mission, organization, and training the medical units are often ill-prepared for disaster relief and occasionally make the situation worse.

A fundamental cause of problems is that deployable medical units are configured to treat injuries and illnesses in healthy, young combat troops. The medical units are neither staffed nor equipped to treat civilian populations that include infants, pregnant women, and the elderly. Standard equipment sets are not designed with infants in mind and formularies do not include pediatric formulations and medications to treat serious chronic illness. It is not uncommon for clinicians in disaster situations to be faced with complex acute and chronic diseases such as advanced heart disease, uncontrolled diabetes, severe respiratory disease, and complicated labor. Most of the smaller deployable hospitals, those that are the most likely to deploy to a disaster, are not designed to manage these types of patients, especially in large numbers.

Another difficulty is that Western-trained military physicians are usually not trained to deal with many of the medical and public health issues encountered in underdeveloped countries. Few military clinicians have managed a case of complicated malaria or severe malnutrition and few military public health professionals have had to deal with a deadly outbreak of dysentery or measles. Medical and public health interventions that are appropriate for the United States may be counterproductive during disasters in developing nations. For example, the use of a reverse osmosis water purification unit (ROWPU) to produce high-quality water may be too resource intensive and less effective overall than simply pouring chlorine in buckets at a water collection point.

The lack of cultural awareness may also complicate the delivery of quality medical care and public health programs. For example, as previously mentioned, certain cultures do not permit male healthcare professionals to examine female patients. Disaster relief deployments to care for this population would require a significant number of female personnel. For public health, one common downfall is failing

to appreciate the sanitation practices of a culture and consequently providing latrines that the population refuses to use.

A final issue is the impact of military medical providers on humanitarian organizations and the local population. Cooperating with, or accepting care from, a military hospital may be viewed as a breach of neutrality. This might incite the wrath of warring parties that would at a minimum disrupt relief efforts and may result in direct physical violence. The failure to gain the trust of local nationals can also be a major roadblock for public health programs that often rely on local health workers to implement effective community-based interventions. The following case study demonstrates some of these issues.

**Case Study 25-5: Adjusting Resource Consumption to the Mission Need.** A Western government was troubled by news stories showing thousands of people dying of diarrhea in an emergency refugee camp. The government responded by deploying a mobile military hospital to the camp. On arrival, the hospital occupied a large piece of ground in order to set up the hospital, quarters for the staff, and a perimeter for security. The hospital staff was soon inundated with hundreds of patients, mostly children dying of dehydration. They immediately began moving from patient to patient starting IVs and giving antibiotics. They were quickly overwhelmed and they soon faced a shortage of IV solution and medication. Many of the patients died before the hospital could be resupplied.

They later learned from an experienced NGO to mainly use oral rehydration while reserving IVs for those patients who couldn't drink. They were amazed to see patients near death improve dramatically with simple oral hydration. In their after-action report the physicians documented that they were frustrated by their lack of preparation for this type of emergency.

**Comment:** As with Case 25-3 ("Good Intentions" Left in the Latrine), the Western staff applied Western medicine in a setting in which the specifics of the situation should have been driving the response, rather than past practices in a familiar setting. The utilization of large amounts of resources (land, water, and so forth) and the failure to adapt the treatment to the patient needs or sheer numbers, prevented the team from being able to maximize their response to the magnitude of the medical need.

This example illustrates the resources that the hospital consumed and also the inadequate training for military physicians in disaster medicine. An official at the Pan American Health Organization (PAHO) insists that mobile military hospitals are a problem for disaster relief because they arrive after the emergency phase, require excessive space and resources, and they eventually redeploy leaving no



local medical capacity in their place.<sup>17</sup> It is often better to send in teams to help establish a local permanent medical treatment facility that helps with the disaster but also stays to treat the local population after the emergency is over.

**Case Study 25-6: Tailoring the Organizational Response to the Local Need.** After a devastating hurricane in Central America, an appeal was made for international assistance. A number of groups in the United States responded to this appeal by collecting large quantities of medication and medical supplies to donate to the relief effort. The US military was asked to transport many of these donations to the disaster area. Unfortunately, the labels and instructions on the donated medical supplies were written in English, they had not been sorted by type of medication before they were sent, and some were close to or past their expiration dates. Not wanting to waste a potentially valuable resource, the host government felt compelled to use scarce medical manpower and resources to sort through the piles of medications, much of which could not be used.

**Comment:** During a subsequent disaster, American relief agencies only accepted cash donations. The funds were then used to purchase appropriate medications and supplies in the affected country. This insured cultural appropriateness while limiting waste and giving a boost to the local economy.

Not all donations of medical goods have the problems described in Case Study 25-6. An example of a civilian donation of supplies in which the items had been sorted and labeled before shipment to Somalia is shown in Figure 25-3. This preliminary sorting and labeling made the utilization of these supplies more likely.

Medical care is considered a universal good by



**Fig. 25-3.** “Members from Aerial Port Squadrons from Dyess Air Force Base, Texas, and Dover Air Force Base, Delaware, download medical supplies donated by the people of Milwaukee, Wisconsin, for distribution in Somalia. Pallets were then loaded onto waiting C-130 Hercules aircraft.” Image and caption: The DoD Joint Combat Camera Center, American Forces Information Services, Assistant Secretary of Defense (Public Affairs). *US Forces in Somalia*, Image #375. Combat camera imagery by Sergeant Kimberly A. Yearyeen.

most people but the inappropriate use of medical assets during a disaster may be counterproductive. Military medical planners and leaders must be prepared to recognize and resist relief efforts that can not accomplish their goals in an appropriate manner.

## CONFLICT-RELATED CONTINGENCY OPERATIONS

### Aspects of Providing Civilian Medical Care During Contingency Operations

This section will focus on operations in which military medical forces are primarily structured and staffed to provide medical care for the deployed force, and thus medical care for the local population is not the focus of the mission. In those instances in which military medical professionals do provide treatment to the local population, care must be taken to ensure that the realities of a combat zone are factored into the decision-making process. Case Study 25-7 details such a situation.

**Case Study 25-7: Providing Feasible Medical Care to Indigenous Populations in a Combat Zone.** In 1967,

when Americans in Vietnam were increasingly being targeted by enemy soldiers, an American surgeon visited a local village to provide medical care. “I was shown a young man with bilateral inguinal hernias. They weren’t very large and probably were of the direct variety so that they offered little risk of incarcerating. Nevertheless I recommended that they be repaired, primarily, I suppose, because it would allow me to practice an operation—a McVay repair—that I had learned shortly before entering the Army and had not done since. Although the operation was usually done in stages because of considerable morbidity, I would do both sides simultaneously because it was dangerous driving from the base camp to the village and I did not know when I might be able to return to do the remaining side if I didn’t do it now. The bilateral repairs were duly performed with much [praise]...from the observers. On leaving, I gave instructions that the patient should remain in bed as much as possible. Unfortu-



nately, the next 3 weeks were quite busy with our own wounded. When I was next able to visit the village, I was distressed to see that the young man was sharing a hospital bed with two other patients, both of whom were quite ill.”

**Comment:** More than 30 years after this case, the surgeon remains troubled by how oblivious he was to the structural limitations of local medical resources at that time. His intention had been to do the best he could for this patient. The patient sharing a bed with other ill, and possibly infected, patients certainly increased the likelihood of postoperative infection for this procedure. In retrospect, it is clear to him that his lack of understanding of the circumstances of this young man’s culture and the resources available to him might have resulted in a severe infection and even death of this patient. The surgeon can now see that his American background and perspective did not mesh well with the day-to-day life of the typical Vietnamese patient at that time.

The areas that are of paramount importance in missions in which armed conflict may occur include resources, priorities for treatment, and security of the healthcare workers and facilities. The term “Medical Rules of Engagement (MROE)” is occasionally used to outline the restrictions placed on when and who to treat. The analogy to the military “Rules of Engagement” (ROE) on when and how to respond with weapons is obvious.

Both the Rules of Engagement and Medical Rules of Engagement may change, sometimes quickly and unpredictably. Initially, Operation Restore Hope, in Somalia, was a humanitarian mission, as well as a security operation for military forces, because the primary mission was to provide a secure environment for the delivery of humanitarian aid. After US service members, NGO aid workers, and other UN peacekeepers were killed by Somalis, it was redesignated as a combat mission. As the tactical situation changed, so did the medical requirements. Case Study 25-8 illustrates the changing Medical Rules of Engagement in Somalia. It also illustrates changing attitudes among both the healthcare professionals and the local population.

**Case Study 25-8: Changing Environments in a Medical Assistance Effort.** In Somalia, during Operation Restore Hope, the United States military was initially generous with medicines and bandages. The doctors and other healthcare personnel had few military patients and were eager to maintain their medical skills. It was logical that medical services would be offered to the local population. The Navy provided MEDCAP (Medical Civic Action Program) services. The US Army’s Special Forces in the countryside treated those Somalis that came to their aid station. The evacuation hospital treated those civilians that US forces had injured, or whoever presented saying that they had been wounded by Americans.

Increasing numbers of Somalis presented to the hospital, claiming they had been injured by US forces. This was clearly the case for some of them who had been shot because they were shooting at American troops. Others had been shot by other Somalis. As the overall military situation began to deteriorate, with foreigners being targeted by members of the warring clans, the situation in the hospital deteriorated as well. Some patients stole hospital supplies. Other Somalis began to infiltrate through the concertina wire from the outside. More and more hospital personnel needed to act as guards, even though few medics were experienced in standing guard. The difficulties were further exacerbated by clan structure and the fact that clans were irritated by their perception that the Americans were not treating their personnel but were treating members of rival clans. The altruistic intentions left hostile feelings on all sides.

**Comment:** The negative turn of events in Somalia was beyond the control of the military medical professionals who had been deployed to Operation Restore Hope. Indeed, a case could be made that the deployment and its consequent difficulties had had sociopolitical factors that had not been considered in the decision to send peacekeepers into the country. American forces had arrived with sincere and altruistic aspirations to help a definitely needy and starving population. Many left angry at Somalis and at their own country for what they perceived as a “no win” situation into which they had been thrust. In retrospect it is apparent that the desire to help a starving population, although exceedingly altruistic, was doomed to fail because it had not addressed the reasons for the starvation, and thus had not implemented realistic expectations and procedures.

Few individuals or organizations dispute that the US military is capable of providing exceptional medical care in austere field environments. Mobile field hospitals and hospital ships provide a level of care on par with many hospitals in the continental United States and Europe. However, the involvement of military forces in conflict-related contingency operations is criticized for various reasons. Some nongovernmental organizations, such as *Médecins Sans Frontières* ([Doctors Without Borders] MSF), maintain that humanitarian aid must be delivered by neutral organizations that provide care to all people on the basis of need alone.

Exhibit 25-4 lists the 10 principle commitments that comprise the Code of Conduct from the International Red Cross and Red Crescent Movement and NGOs in disaster relief. The code was adopted in 1994 by eight of the largest international disaster response agencies, and is used by the International Red Cross to assess its own relief efforts. Principle 4 states that “we shall endeavor not to act as instruments of government foreign policy.” Humanitarian organizations assert that militaries are instru-

#### EXHIBIT 25-4

#### CODE OF CONDUCT FOR THE INTERNATIONAL RED CROSS AND RED CRESCENT MOVEMENT AND NGOS IN DISASTER RELIEF

1. The humanitarian imperative comes first.
2. Aid is given regardless of the race, creed, or nationality of the recipients and without adverse distinction of any kind. Aid priorities are calculated on the basis of need alone.
3. Aid will not be used to further a particular political or religious standpoint.
4. We shall endeavor not to act as instruments of government foreign policy.
5. We shall respect culture and custom.
6. We shall attempt to build disaster response on local capacities.
7. Ways shall be found to involve programme beneficiaries in the management of relief aid.
8. Relief aid must strive to reduce future vulnerabilities to disaster as well as meeting basic needs.
9. We hold ourselves accountable to both those we seek to assist and those from whom we accept resources.
10. In our information, publicity and advertising activities, we shall recognize disaster victims as dignified human beings, not hopeless objects.

ments of government foreign policy and therefore should not be involved in direct humanitarian aid.<sup>18</sup> They worry that the neutrality of their own organizations may become suspect if they are perceived to be working too closely with the military. Because the NGOs are not armed, they are especially vulnerable to retaliation. The killings of aid workers in Chechnya and East Timor in the 1990s illustrate their vulnerability.

Despite those reservations, it is likely that the United States will continue to provide aid to civilians in contingency operations. This section, like the previous one, attempts to outline some of the factors involved so that decision making is the best possible. The variables fall into the following categories:

- the tactical situation;
- the relationship of the local civilian population to US armed forces;
- patient priority;
- available resources;
- availability of other medical professionals (local, allies, and NGOs);
- whether US forces caused the injury;
- the acute vs chronic nature of an illness or injury; and
- the projected length of stay in a deployed environment.

#### Balancing Allocation of Medical Resources

There are seldom, if ever, enough resources to treat all persons needing medical assistance. During contingency operations, the question of re-

sources is always central. The balance is how to provide for one's own forces, and also provide life-saving care for the local population. Sometimes the most that can be done is to unofficially provide some of the most rudimentary basics, as the following case study describes.

**Case Study 25-9: Disobeying Orders—The “Risks” Associated With the Desire to Help.** During the Korean War there were hundreds of thousands of ill, starving, and homeless refugees. The American military physicians were officially told not to treat the local population, but instead to save their medical supplies for the American and allied troops.

At least one physician ignored the order.<sup>19</sup> He set up a makeshift hospital in a warehouse. Within a month, he had approximately 2,500 patients in the warehouse. Although he could not supply them all with medication, they did have shelter and blankets.

**Comment:** This physician was able to feel that he had made a difference in the plight of these refugees. However, had there been a need for the medical supplies he was diverting to the local population, there would have been serious repercussions following his decision to disobey the orders he had been given.

The United States and other sophisticated militaries deploy with advanced medical equipment, medicine, and healthcare personnel to treat the deployed force. Medical planners normally plan for worst-case scenarios that have fortunately rarely occurred in recent conflicts. The resulting excess medical capacity is then potentially available to treat the many wounded and sick civilians who have not been cared for.

Military operations orders may specify that

medical care be reserved for United States or coalition forces only. However, the guidance may also permit the local commander or surgeon to authorize care for other groups, including civilians, as the situation allows. The humanitarian imperative often dictates that US medical assets be used to provide life, limb, and eyesight saving care to civilians.

Tactical considerations will be of prime importance to the commander and his medical planner. Obviously the ability of US medical professionals to treat local populations varies depending on whether the environment is friendly or hostile. In times of calm, there is usually more flexibility than in times of conflict. If plentiful resources are available, US military healthcare professionals may be more generous than if resources are scarce. Similarly if the surgeons have no pending surgery cases, or the infectious disease doctors have never seen a case of dengue fever before, they may be very interested in providing treatment. It is difficult, however, to predict just how quickly medical situations might arise, as the following case study demonstrates.

**Case Study 25-10: Allocating Medical Resources in a Rapidly Changing Military Environment.** An American military truck convoy came upon a three-vehicle pile-up (vehicles similar to the one shown in Figure 25-4), with two dead, three seriously injured, and many others who were slightly injured, near Bardera, in the southern portion of Somalia. The Joint Task Force (JTF) Surgeon, located in Kismayu, was asked to send two medevac Blackhawks for assistance in transporting the victims to Mogadishu. Because the military situation in Kismayu was relatively quiet that morning, he dispatched two choppers, with pilots and medics. He then went to visit a local NGO.

When the JTF surgeon returned to his headquarters, he learned from the hospital in Mogadishu that the three seriously injured traffic accident victims had died during the flight. Furthermore, his superior was irate that the helicopters were used on a civilian mission as there had been heavy fighting in Bardera that day and the commander of the medevac battalion had had to scramble to find enough assets to pick up the wounded Marines.

**Comment:** In the beginning days of a deployment, supplies may be abundant. If a mass casualty situation occurs, and blood is short for American service members, there may be legitimate criticism about “wasting” that blood. In the above example, no American lives were lost on the mission—but they could have been. All helicopter missions have some element of danger. If helicopters and crews are dispatched to pick up the victim of a traffic accident, and one of those helicopters crashes, that crew and that helicopter will not be available for their primary function. Similarly if the hospital beds are all full with local civilians, and an emergency situation develops requiring those beds for US troops, there will be a dilemma. The primary mission for the medical professionals is to

support the US military mission. There is also an implied promise of providing the necessary care (even if long-term) to these civilian patients once they enter the facility.

Large medical facilities, especially if land-based, require considerable resources themselves—to move into place, provide water and electricity, dispose of the waste, and to guard. Deployment of hospital ships might be interpreted to mean that either large numbers of American casualties are expected or that there is a plan to treat the local population. A heavy deployment of medical assets may also lead to “mission creep,” which refers to a broadening of the mission, in part because support assets are in place. Although these are usually tactical considerations, these decisions may have ethical implications as well. For example, expectations may be raised about more extensive treatment of the local populations and then not fulfilled. Thus local infrastructure may be hampered in its development. The large facility required may use scarce



**Fig. 25-4.** “A truckload of Somali men from the village of Maleel arrive at the field used as a landing zone by US Marine helicopters delivering sacks of wheat donated by the people of Australia. 23 January 1993.” Caption and photo: The DoD Joint Combat Camera Center, American Forces Information Services, Assistant Secretary of Defense (Public Affairs). *US Forces in Somalia*, Image #251. Combat Camera photo by PHCM Terry C. Mitchell, US Navy. In developing countries like Somalia, the shortage of transportation assets results in aging vehicles that are often overloaded with passengers. When these vehicles are involved in accidents, the numbers of injured and dead may be considerable.



water or occupy the best land. Hospital personnel may need to spend shifts guarding the facility rather than treating patients. If the hospital has taken on care of large numbers of the local population, the question of what to do with them if the hospital is ordered to redeploy becomes problematic.

### **Establishing Mission Priorities and Their Implementation**

Medical planners must decide what type of medical assets to deploy. The mix of healthcare professionals should be determined by the prospective mission and the priorities of treatment. If only American service members and allies will receive medical services, then the mix should concentrate on preventive medicine physicians, surgeons, and those who concentrate on treating acute illness or injury. If the local population will also receive medical services, then the medical assets mix should also include pediatricians, maternal health specialists, and specialists in chronic illness. The available time before deployment to gather the required personnel may also influence the mix of healthcare professionals.

A priority list needs to be developed by medical planners before a deployment. All should realize, however, that priorities may change depending on the situation. The identified priorities will depend both on readily available resources and the prevailing political realities. Some of the issues to be considered before initiating treatment in country include:

- How to categorize and prioritize patients (by age, gender, disease, or some other category?)
- How to focus treatment plans and options (acute treatment or chronic care?)
- How to ration limited or scarce resources (begin or delay treatment of civilians needing these resources?)
- How to interface with local but limited medical resources (begin or refrain from beginning treatments that cannot be continued at local facilities?)

Seldom are the issues simple. The problem becomes more complicated, however, if the patient under consideration is not a soldier but rather is a criminal who has been wounded by American forces, as the following case discusses.

**Case Study 25-11: Mission Priorities and Medical Care.** A local man was observed dousing a woman with gasoline, then setting her on fire. An American soldier,

witnessing the event, and thinking that he could stop (but not kill) the man, shot him in the buttocks. The man was admitted to the US military hospital because he had been wounded by an American. However, the woman was not eligible to be admitted to the American hospital because her injuries were not caused by an American. She was therefore transported to a local hospital; her outcome was not known to the Americans.

The bullet caused extensive internal damage in the man, requiring a series of operations and lengthy convalescent care, at a considerable expense to the US military. While hospitalized, the patient waved his genitalia at the nurses and harassed the staff. The entire time he was undergoing treatment, the victim's family maintained a watchful presence at the gate, presumably to exact revenge if he survived.

**Comment:** This was a very emotionally difficult episode for the hospital staff. They were not allowed to treat locals who were dying outside the gates of the hospital, except for those injured by US forces. Furthermore, they believed the patient's prior actions were abhorrent and they were distressed at the amount of medical resources being used to treat him. They were further distressed by their knowledge of the general level of disease and suffering in the local population and the thought that the same amount of medical resources used outside the gate, rather than on this reprehensible patient, might alleviate a considerable amount of that suffering. Their intellectual understanding of the requirement to treat those that Americans had wounded did little to lessen their anger in dealing with this extremely difficult patient. They questioned if it was ethical to spend over \$300,000 to treat this patient yet ignore dying children right outside the gate.

The emergent nature of an injury raises another question. In most instances, if US military healthcare professionals are presented with an "acute life or limb" injury the decision is made to treat. If the local civilian patient has a chronic disease where long-term medication may be needed, such as HIV or tuberculosis, there is little likelihood of US medical treatment. Likewise, if after an operation a patient will need dialysis to survive, the surgery may not be done, unless the patient can be evacuated for long-term care and the US government is willing to accept that expense. In fact, even crutches and bandages are not usually provided, let alone any other forms of long-term convalescent care.

An exception to this determination to not provide long-term care occurs if US forces inflicted the injury, whether in a firefight or motor vehicle accident. If the patient were injured in a hostile action, even if not officially guided by the Geneva Convention prisoner of war rules (which cover war between sovereign nations), most would agree that the ethical requirement is to treat. Then the patient will need guards, to ensure no pilferage or other-



wise more serious disruption. It may be difficult for the medical unit to have enough hospital staff to provide guards and still be able to perform their healthcare mission.

If the patient presents to a US military medical facility, stating that US forces caused his accident or injury, it may be difficult to turn that patient away even if the healthcare professionals are absolutely certain that the accident or injury was not caused by US forces. The danger is that this often leads to a long line of potential patients, claiming that US forces caused their injuries, whether or not that was actually the case. There are no existing guidelines as to how to make those distinctions.

In general, those who are working for US forces, whether doing laundry, cleaning out buildings, or translating, will receive medical treatment. Again an issue arises as to how far that treatment extends—to their immediate or extended family members, those who work for US allies, or say they have worked for the United States in the past? (This is complicated by the fact that US military medical facilities do not have the administrative capability to verify such an employment relationship.) We do not have an answer to this ethical question, other than to note that the provision of such treatment often depends on the resources available as well as the tactical environment.

These decisions regarding treating the local population are further complicated by the fact that it is difficult to predict how long US forces will remain in the theater. In the event of an early pull-out, patient care will be disrupted unless patients are taken with the medical units when they depart. This raises questions about American obligation to these patients. If these patients are in the midst of treatment, it will be difficult, if not impossible, to see to the conclusion of the treatment plan. In Somalia, after the attack that left 18 American soldiers dead, the United States forces were ordered to rapidly withdraw. Nothing is known of the fate of any Somali patients left behind.

Another potential area of concern is mental health treatment. The military traditionally provides little mental health treatment to the local population. There are usually so many barriers of language and culture that to provide any “counseling” is very difficult. There are situations, however, in which military healthcare professionals need to intervene in mental health problems in a local population. Even severe mental illness, which responds to medication, has cultural overlays. Psychotherapy and counseling are even more culture bound. To bring a patient out of psychosis or depression with

medication, then leave that same patient to relapse back into illness might actually worsen the patient’s overall psychiatric condition.

For instance, a number of Haitian migrants who were interred in Cuba had severe mental illness. It is generally not feasible to house patients with severe mental illness alongside medical patients. And it is likewise not feasible to simply isolate such patients as that would require considerable additional resources to monitor and restrain their behavior. The migrants as a group were housed in an old Navy brig (Figure 25-5), which had been abandoned because it was unfit for sailors. In Cuba, US military psychiatrists treated the Haitian migrants with severe mental illness on this “inpatient” ward with medications.<sup>20</sup>

A psychiatrist serving in Cuba described an additional dilemma. Migrants who had mental health diagnoses were barred from immigration to the United States under State Department policy.<sup>20</sup> Immigration authorities asked to see mental health records to aid in making immigration decisions. This placed him into a considerable ethical dilemma: Should he stop keeping records or should he stop seeing patients so his patients had an opportunity to migrate? But, if he helped them circumvent United States law, would that not also be illegal or unethical?

Many NGOs, however, do provide mental health



**Fig. 25-5.** US Naval Brig, Guantanamo Bay, Cuba. The facility was condemned, but was used to detain migrants with mental illness. The psychiatrist was troubled that his treatment of the detainees could be used to restrict them from immigration to the United States. Photograph: Courtesy of Lieutenant Colonel Dermot Cotter, MD.

counseling. There have been numerous attempts to provide therapy to the local population in Kosovo.

**Case Study 25-12: Understanding Cultural Needs of Patients.** A nongovernmental organization started a support group for Albanian women who had been raped by Serbs. The facilitator attempted to get the young women to talk about the rape experience. The women would not talk about their experiences, but were eventually willing to discuss their concerns about the lack of water and electricity and the coming winter. One of the women in the group had been made pregnant by her attacker. She strangled her healthy newborn baby shortly after its birth. This shocked the counselors, but the other group members seemed to understand.

**Comment:** In a Western context, rape victims can generally expect sympathy and reintegration into society even if they became pregnant in the attack. In other countries there is no such expectation. Indeed, in many countries the women become outcasts after such an attack. Raising a child who was fathered in the attack would add to their difficulties. The failure to understand the cultural context of these women's experience not only negated the therapeutic effectiveness of this effort, but it also added to their burden (by having to endure the facilitator's attempts to get them to talk about the unspeakable). Further, such a failure can have a "ripple effect," impeding the implementation of programs that are of benefit.

Local Albanian and Croatian healthcare professionals have criticized these efforts for the lack of cultural sensitivity and unsupervised inappropriate application of Western methods to very different cultures.<sup>21</sup> There are currently attempts to develop guidelines on credentials and training of NGO counselors.<sup>22</sup>

### Increasing Security in Conflict-Related Contingency Operations

The security of medical supplies and facilities, and thus the safety of medical personnel, can not be guaranteed in a contingency operation. Although US military medical personnel have been relatively "safe" in the recent past, other nations have had physicians killed and NGOs have had relief workers killed.

The Geneva Conventions, which govern armed conflict between sovereign nations, seek to protect the wounded, medical establishments, and medical personnel. The wounded and sick "shall be respected and protected in all circumstances."<sup>1(Art 12)</sup> "Fixed establishments and mobile medical units of the Medical service may in no circumstances be attacked, but shall at all times be respected and protected by the Parties to the conflict."<sup>1(Art 19)</sup> Medical personnel are protected, and if captured, are not considered prisoners of war,

but detained personnel.<sup>1(Art 24,30)</sup>

Although many countries try to maintain the stated considerations of the Geneva Conventions for the safety and treatment of the medical mission, not all countries abide by these rules. This was certainly the case in World War II where there were instances of clearly marked medical facilities being attacked. The safety of medical areas becomes more tenuous when the warring parties are nonsovereign entities (ie, nonsignatories to the Geneva Conventions) and have made no commitment to refrain from attacking such installations. In these instances, the likelihood increases that the Red Cross or Red Crescent emblem may be seen as a distinct target.

Furthermore, often the security threat comes not from any armed group but rather from the local population. It can be troubling to healthcare professionals to need to guard supplies such as bandages, medications, and even food, to keep them from a potentially needy population. Most medical personnel have very little training in setting up concertina wire or guarding the perimeter. In many instances their familiarity with weapons is limited to going to a range for a couple of hours every few years. Under the Geneva Conventions, they may



**Fig. 25-6.** One of the authors [ECR] in Somalia with the 528th Combat Stress Control Detachment. From the beginning, medical personnel were alert for the possibility of hostile action by the various warring Somali clans. When shots rang out, or mortar shells were heard, personnel were instructed to get down below the level of the windows, put the ammunition clip in the chamber of the sidearm, but not "lock and load." The Rules of Engagement (ROEs) were continually changing. Photograph: Courtesy of Lieutenant Colonel Elspeth Cameron Ritchie, MD.

carry weapons for defense of their patients and themselves (Figure 25-6). Yet in contingency operations there may be few excess police or combat arms soldiers to secure the facilities. That leaves the medi-

cal staff with the task of safeguarding the supplies, even though they have little expertise in this area. This inexperience may contribute to a siege-like atmosphere as well as actual pilferage.

### **“TAKING CARE OF” THE CAREGIVERS**

It has long been recognized that there is a limit to the terrors of war that individuals can experience before these affect them personally and psychologically. Over the years this has been given a variety of labels, including battle fatigue and combat exhaustion. A number of programs have been instituted to alleviate, as much as possible, this very real after-effect of war. Whether it is done through after-action reviews, which seek to debrief a group that has experienced trauma, or by utilizing combat stress principles, which seek to rest, reassure, and return soldiers to their units, the goal is the same—to acknowledge the trauma and to provide a way to return to function (Figure 25-7).

Military medical professionals are not exempt from the terrors of war and the resulting psychological impact. It is true that the operations this chapter has described often do not involve the horrific casualties that one normally associates with

combat. Nonetheless, there is still the significant potential for medical personnel to experience psychological difficulty providing medical care in the exceedingly dangerous environments of some of the contingency missions, with all the frustration, impotence, and fear that accompanies these missions. Although the US military seeks to protect the health of the forces, there has been less attention paid to assessing the impact of watching people die, while powerless to save them because of a lack of resources, the danger involved, or the medical rules of engagement. The feelings of terror are compounded if the healthcare professionals also feel that they personally are in danger, as often may be the case.

All of these factors—fear, impotence, danger, and horrific mass casualties—combined to affect the Canadian peacekeeping forces in Rwanda in 1994. The task confronting them was of such magnitude that they found themselves in a virtual “sea of humanity” (Figure 25-8) in which they were powerless to do much more than witness the unfolding events. They were so outnumbered that all they could do was watch and “witness the evil” as thousands of people were attacked with machetes.<sup>23</sup>

Several years later one of their generals confirmed that he had developed posttraumatic stress disorder (PTSD) with suicidal ideation.

Dallaire, who commanded the UN mission in wartown (sic) Rwanda in 1994, took early retirement last April on medical advice, citing stress and nightmares due to Rwanda’s civil war horrors. He has publicly acknowledged his battle with post-traumatic stress. He admitted recently he tried at least twice to take his own life since he commanded the mission, during which his troops were unable to prevent the massacre of approximately 800,000 Hutus and Tutsis.<sup>24</sup>

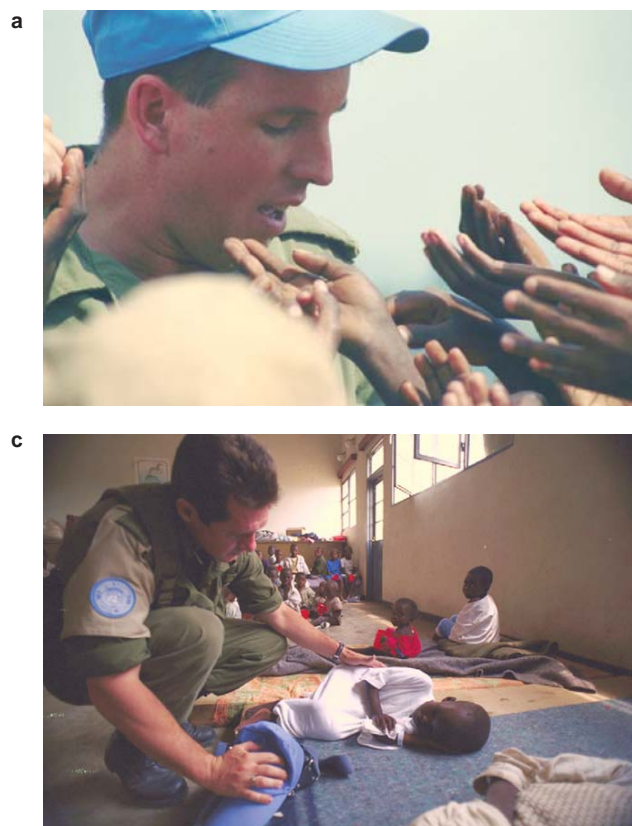
Dallaire was quoted by the Canadian Broadcasting Corporation Radio as having said, in a written statement sent to the *National Post* [a Canadian daily], that

[t]here are times when the best medication and therapist simply can’t help a soldier suffering from this new generation of peacekeeping injury. The anger, the rage, the hurt and the cold loneliness that



**Fig. 25-7.** “Division Mental Health: We Decide What’s Normal!” This sign, hand-lettered on cardboard and attached to the wall with duct tape (especially versatile in austere environments), announces the location of the mental health assets of the 10th Mountain Division Mental Health in Somalia. Part of the job of mental health was to validate and normalize the feelings of horror and sorrow among the military personnel, “normal reactions to abnormal situations.” Hence the ironic motto of the 10th Mountain Division Mental Health (which the 528th adopted): “We decide what’s normal.” Photograph: Courtesy of Lieutenant Colonel Elspeth Cameron Ritchie, MD.





**Fig. 25-8.** A Canadian peacekeeper in Rwanda, passing out information (a), tending to a sick child in the street (b), and visiting a makeshift infirmary for children (c). These three photographs demonstrate the magnitude of the task facing the Canadian forces in Rwanda. Surrounded by people in need of the most basic of services, and unable to adequately meet those needs, the peacekeepers found themselves unable to accomplish the mission they had set out to do. These photographs do not, however, illustrate the horror of what the Canadians saw as they bore witness to the slaughter around them, outnumbered and unable to stop it. However, through their efforts with the media, they were able to bring the attention of the world to the events in Rwanda. Photographs: Courtesy of the Canadian Forces.

separate you from your family, friends and society's normal daily routine are so powerful that the option of destroying yourself is both real and attractive.<sup>25</sup>

Historically the US military has focused training on preparation for actual combat, but recently preparation for other operations, to include disaster relief and contingency, has been augmented to include physical and emotional aspects. It is this latter category, the emotional aspects of deployment to a peacetime engagement project or a contingency operation, that is increasingly becoming important to military medical professionals. The principles of battlefield psychiatry are applicable here, but these principles need expansion and modification for contingency operations. The basic principles of battlefield treatment for combat stress or battle fatigue casualties are: (a) prevention, (b) early intervention with those who may be affected, and (c) immediate treatment with members who have signs and symptoms. Classically this has been codified in mnemonics such as PIES: proximity, immediacy, expectancy, and simplicity. (Jones has discussed these principles in detail in two volumes, *Military Psychiatry*<sup>26</sup> and *War Psychiatry*,<sup>27</sup> in this textbook series.)

Modifying these principles of battle psychiatry

for use with contingency operations is still in development. However, once again the important principles are preparation, early intervention, and simple treatment. Preparation includes instructing medical professionals in basic soldiering skills, to ensure that they are comfortable with their weapons, and know how to guard or otherwise secure themselves and the medical treatment facilities. They need to be given as much information as possible about the potential situation before they deploy. If they will be treating rape and torture victims, or exposed to the sight and smells of mass graves, this should be discussed in advance, as a form of "stress inoculation." The importance of the mission should be explained so they can clearly understand their role in its success. Vertical (up and down the chain of command) and horizontal (between peers) communication must continue constantly, so that they are not left to guess (or to spread rumors) about the purpose, security, and length of the mission. The Medical Rules of Engagement likewise should be discussed, as well as the rationale behind them.

It is especially important that they be given the opportunity to freely discuss any serious incidents (before, during, and after), especially if they are in



a particularly distressing situation, such as the death of a teammate or a child. Such early intervention strategies are especially important if they have witnessed mass carnage. This latter case is an instance that these authors believe should mandate the opportunity for all personnel to discuss what they have experienced. Medical personnel who have been deployed on these missions will also need preparation for reentering “normal” society, which may not understand or care about what they have been through. This reentry preparation may be done by chaplains or mental health workers, but ideally should be initiated by their leaders.

The US military tries to prepare service members for the sights, smells, and sounds of mass carnage, and, with after-action reviews, tries to ameliorate

the impact of those sensory experiences. Nonetheless, there truly is no adequate preparation for the sights, smells, and sounds of mass death. Indeed, many who have had the experience of seeing the unthinkable are forever changed by the event. Furthermore, they are often unable to even adequately describe the impact of the experience to those who were not there. It is encouraging, however, that relief agencies are also learning of the potential long-term devastating effects to the caregivers. For instance, some of the NGO organizations are now trying to prepare their workers for the experience of being taken hostage or tortured,<sup>28</sup> which is similar in concept to the military’s survival training. If preparation for the distressing aspects of the mission is not adequate (there are missions for which



**Fig. 25-9.** Photo of signpost pointing the way home (a). It is not uncommon for troops to erect signposts such as this one. The posts provide an ironic outlet for feelings of being far from home, and in places that feel distinctly alien. Photo of a stretcher (b) with a “patient” made of camel bones, and other bones arrayed around the stretcher with the motto of a medevac company: “ANYONE, ANYTIME, ANYWHERE.” This motto was challenged by the dangerous environment and the shifting priorities for treatment. Despite the humorous nature of this improvised display, there is some reality to the “veterinary medicine” aspect of the display—livestock are sometimes brought to the medical personnel as patients. For some indigenous populations, healthy livestock means healthy people. Photographs: Courtesy of Lieutenant Colonel Elspeth Cameron Ritchie, MD.

there can be no adequate preparation), and early intervention does not lessen the reaction to the degree necessary for a return to function, then these various organizations have a moral obligation to take care of the caregivers by providing them with effective treatment for their understandable reactions to these experiences.

It is widely anticipated that for the foreseeable future the US military will continue to provide humanitarian medical assistance in the form of peace-time engagement projects, disaster relief operations, or conflict-related contingency operations in various locations around the world. Medical planners, physicians, and other healthcare professionals need to anticipate the opportunities and difficulties of un-

dertaking these missions in dangerous and austere environments. This planning needs to focus not just on the logistics of the operation, but also on the personnel aspects as they impact their own forces. Sometimes these missions come at a moment's notice, in which case the military medical professionals are airlifted from the comfort of their day-to-day routines into the midst of circumstances that are simply unimaginable for most Americans. In these circumstances, personnel need to have a sense of mission, duty, and home. Helping them maintain those contacts with what they have left behind, whether through mail, voice links, or humor (Figure 25-9) will better enable them to cope with the sometimes alien landscapes in which they find themselves.

## CONCLUSION

We have outlined the legislative background, the different types of contingency operations, and questions of resources, priorities, and security to allow medical personnel in the future to have a better sense of what these missions entail. We have also highlighted the pitfalls—poor communications, unrealistic expectations on both sides, inadequate understanding of the local cultures, and not integrating with local resources—in an attempt to avoid them. We have emphasized the qualities of successful operations, which as well as avoiding the pitfalls, include sustainability and a focus on public health measures. American military medical forces should leave these places and peoples better than when they came. Otherwise, how can Americans ethically justify these interventions?

Unfortunately, this chapter cannot prepare medical planners or healthcare professionals for all engagements. Contingency operations, especially, always vary in mission, resources, training, logistics, and security concerns. However, too often military healthcare professionals only grapple with these dilemmas when they are literally on the sandy or muddy ground, trying to decide whether to send a

helicopter to a traffic accident or whether to treat a wounded man on the doorstep of the hospital. Better training needs to be provided to military healthcare professionals to anticipate the ethical, tactical, and logistical issues of treating a local population in a dangerous or austere environment.

Many of the pitfalls that have been discussed in this chapter can be avoided in the future if policy makers and the planners of these missions examine how and why these problems occur, and initiate remedies. The healthcare professionals who are sent on these most difficult of missions deserve the best support, both logistical and personal, that can be provided to them.

This chapter has emphasized the value of understanding limitations and planning for the unexpected. Even so, neither the danger nor the austere conditions may be sufficiently anticipated when planning a humanitarian medical mission. The experience of the Americans in Somalia and Haiti or the Canadians in Rwanda, who were forced to become passive observers of mass genocide, highlights the perils of any mission, but particularly a problematic mission with inadequate protection.

## REFERENCES

1. International Committee of the Red Cross, The Geneva Conventions of 12 August 1949. Geneva 1949.
2. International Committee of the Red Cross, Protocols Additional to The Geneva Conventions of 12 August 1949. Geneva 1977.
3. Wittich AC. The medical care system and medical readiness training exercises (MEDRETEs) in Honduras. *Mil Med.* 1989;154(1):19–23.
4. Weisser RJ Jr. The maturing of MEDRETEs. *Mil Med.* 1993;158(8):573–575.

5. Silverman MA, Barnes D, Zlamal R, et al. Medical readiness training exercise in El Salvador, Central America, 1996. *Mil Med.* 1998;163(8):519–523.
6. Aller LF. MEDRETEs [letter comment]. *Mil Med.* 1994;159(1):A4.
7. Zaijtchuk R. MEDRETEs [letter comment]. *Mil Med.* 1994;159(1):A4.
8. Médecins Sans Frontières. Lecture given in Switzerland 5 September 2000 by an official representative of *Médecins Sans Frontières* at the International Course on Law of Armed Conflict.
9. Spring B, Spencer J, Anderson JH. *Issues 2000: The Candidate's Briefing Book*. #14, National Defense, Restoring US Military Strength. Washington, DC: The Heritage Foundation; 1993. Available at: <http://www.heritage.org/issues/chap14.html>. Accessed 29 November 2001.
10. Conetta P. Toward a smaller, more efficient, and more relevant US military. *Project on Defense Alternatives*. Cambridge, Mass: The Commonwealth Institute; October 2000. Available at: <http://www.comw.org/pda/0010bm17.html>. Accessed 29 November 2001.
11. Waller SG, Ward JB. The HCA battle-lab [letter comment]. *Mil Med.* 1999;164(7):V.
12. Truman Sharpe, Uniformed Services University of the Health Sciences. From a talk given by T. Sharpe, 2000.
13. Lieutenant Colonel Maureen Fensome [a Canadian physician who served in Rwanda]. Personal Communication, 2001.
14. Hood CH. Humanitarian civic action in Honduras, 1988. *Mil Med.* 1991;156(6):292–296.
15. Luz GA, De Paw JW, Gaydos JC, Hooper RR, Legters LJ. The role of military medicine in military civic action. *Mil Med.* 1993;158(6):362–366.
16. Dreher RJ, Radoiu M. Eyeglass MEDRETE: Practical considerations (a user's guide). *Mil Med.* 1996;161(6):334–338.
17. Roundtable discussion, Pan American Health Organization Conference on Hurricane Mitch Response, Dominican Republic, 1999.
18. The partiality of humanitarian assistance: Kosovo in comparative perspective. Toby Porter, December 1999. Available at: <http://www.jha.ac/articles/a057.htm>. Accessed 29 November 2001.
19. Information provided by Dr. John Greenwood, Historian, Office of the Surgeon General, US Army.
20. Dermot Cotter [Army psychiatrist who served in Cuba]. Personal Communication, 2001.
21. Remarks by speakers at the International Society for the Study of Traumatic Stress, ISTSS Conference, December 2000, San Antonio, Texas.
22. Friedman MJ, Warfe PG, Mwati GK. Mission-related stressors and their consequences among UN peacekeepers and civilian field personnel. In: Green B, Friedman M, deJong J, et al, eds. *Trauma in War and Peace: Prevention, Practice, and Policy*. Dordrecht, The Netherlands: Kluwer Academic Publishers; In press.
23. Interview of General Romeo Dallaire by Michael Enright on CBC News Radio, 11 June 2000.
24. Dallaire speaks publicly after being found unconscious in park. *CP Wire*. 4 July 2000 (Reference 00070401).
25. Romeo Dallaire writes. *National Post*. 4 July 2000:A16.

26. Jones FD, Sparacino LR, Wilcox VL, Rothberg JM, eds. *Military Psychiatry: Preparing in Peace for War*. In: *Textbook of Military Medicine*. Washington, DC: Office of The Surgeon General, US Department of the Army and Borden Institute; 1994.
27. Jones FD, Sparacino LR, Wilcox VL, Rothberg JM, Stokes JW, eds. *War Psychiatry*. In: *Textbook of Military Medicine*. Washington, DC: Office of The Surgeon General, US Department of the Army and Borden Institute; 1995.



# Chapter 26

## A LOOK TOWARD THE FUTURE

THOMAS E. BEAM, MD<sup>\*</sup>; AND EDMUND G. HOWE, MD, JD<sup>†</sup>

---

### INTRODUCTION

### FUTURE ISSUES AFFECTING POLICY

Nonlethal Weapons  
“Bloodless War”

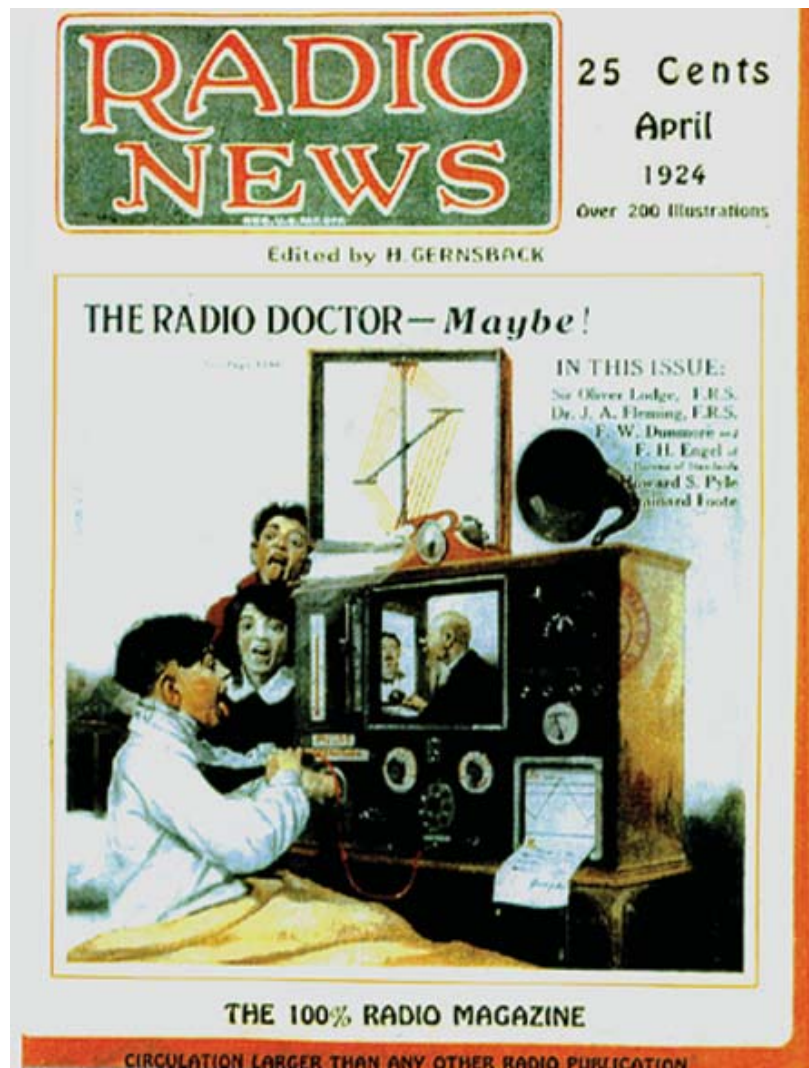
### FUTURE ISSUES AFFECTING INDIVIDUALS

Telemedicine/Telepresence Surgery  
Pharmacological Optimization for the Battlefield  
Lazarus Project

### CONCLUSION

<sup>\*</sup>Colonel (Retired), Medical Corps, United States Army; formerly, Director, Borden Institute, Walter Reed Army Medical Center, Washington, DC 20307-5001 and Medical Ethics Consultant to The Surgeon General, United States Army; formerly, Director, Operating Room, 28th Combat Support Hospital (deployed to Saudi Arabia and Iraq, Persian Gulf War)

<sup>†</sup>Formerly Major, Medical Corps, United States Army; currently, Director, Programs in Ethics, Professor of Psychiatry, and Associate Professor of Medicine, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, Maryland 20814; and Chair, Committee of Department of Defense Ethics Consultants to the Surgeons General



*Nothing New Under the Sun.* As this somewhat humorous depiction from 1924 shows, telemedicine has been a fascinating application of technology for many decades. This concept is a reasonably accurate depiction of some telemedicine applications today. One can only wonder how many of the futuristic concepts explored in this chapter will become standard medical practice in the future.

## INTRODUCTION

In this second volume of the *Military Medical Ethics* textbook, we have examined the historical dilemmas associated with practicing medicine in the military. These include some of the travesties that can occur when priorities become unbalanced. We have looked at some of the current checks and balances in the United States military. In this chapter we will look to the future. This chapter will examine several possible future scenarios and attempt to establish for each a starting point for their ethical analysis.

Physicians in the military will always face ethical issues. As technology continues to improve in the future, there will be new challenges. Some of the unique issues and ethical dilemmas associated with them are evident today. It is likely that there will be issues that require new paradigms for conducting ethical analyses. Some examples are methods of warfare designed to reduce human suffering and new technologies developed to enhance the health and well-being of the soldier.

This chapter will be divided into two sections. The first will involve policies. The first issue is the one just noted above—policies regarding nonlethal weaponry. This new technology possibly raises the need for a new analytic paradigm because the effects of this weaponry are the opposite of the weaponry usually used. The second issue is policy regarding the media. Here, because new technologies, such as precision-targeted bombing, may lead to societal expectations of a “bloodless war,” the me-

dia, by enhancing this expectation when it is unrealistic, may be working against the military and greater society’s ultimate interest. Yet, because the military does and should represent and carry out society’s will, society should have as much access to updated information through the media as is practicable. Thus, there is a present and ever-increasing ethical dilemma in regard to how these conflicting interests should be resolved.

In the second section, we will discuss telemedicine and telepresence surgery, the use of drugs to enhance soldier’s performance, and the use of new potentially lifesaving techniques not yet fully tested to save their lives during combat. The new technologies involving telemedicine raise such issues as when these technologies should be employed and this in turn involves such questions as how their use will affect soldiers’ morale. The use of drugs such as short-acting sleep medications is already being tested to enhance soldiers’ performance and welfare on the battlefield. The use of other drugs before combat has not been carried out but as new drugs are developed, this may be readdressed. New treatments not fully tested are already being considered on “compassionate grounds” for battlefield use, but appropriate procedures have not yet been developed to protect soldiers optimally from unknown, potential harms of new but not fully tested treatments while allowing them to have the benefits from them.

## FUTURE ISSUES AFFECTING POLICY

A large organization such as the military faces many issues that require policy decisions. Policy decisions, and their ethical analyses, are analogous to those now being pursued in the rapidly developing field of organizational ethics in civilian medical contexts. In this chapter we will focus on two issues requiring policies: (1) nonlethal weapons and (2) “bloodless war.”

### Nonlethal Weapons

The Geneva Conventions were developed in an effort to fight wars more “humanely” (see Chapter 23, *Military Medicine in War: The Geneva Conventions Today*). Weapons that cause indiscriminate and unnecessary suffering are banned.<sup>1,2</sup> The just war principle of discrimination requires using the least force necessary to accomplish the mission (as discussed in Chapter 8, *Just War Doctrine and the International Law of War*). Several new technolo-

gies that attempt to limit the lethality of weapons are currently being evaluated to attempt to decrease the human toll of wars and operations other than war.<sup>3</sup> These devices are also being examined for use by civilian police forces.<sup>4,5</sup> There are agents that stun opponents, using electricity, light, or sounds. Projectiles can be developed that have less kinetic energy or are made of different materials than those currently used that cause permanent injury or death. There are agents that can immobilize an enemy—such as glues, nets, and foams. Chemical irritants or other chemical or mechanical agents also can decrease the enemy’s will to fight. Some of these weapons were deployed to Somalia with the US Marines who safeguarded the withdrawal of the remaining United Nations (UN) peacekeepers.<sup>6,7</sup> Of them, the Marines actually used slippery foam to attempt to control looters.<sup>8</sup> In civilian contexts just the knowledge that these weapons exist and will be used more freely than lethal force has reduced

the number of times they are needed (ie, the threat of their use can be a deterrent).<sup>9</sup>

Medical ethical decisions are inherent in how physicians become involved in developing the technologies discussed above. Physicians could help determine thresholds beyond which the weapons have a higher likelihood of causing death or permanent injury.<sup>10,11</sup> Physicians could also, by using their knowledge of physiology and anatomy, help develop more efficient weapons. The core ethical question these possibilities pose is whether physicians should participate in developing these weapons. The Geneva Conventions leave this question unanswered. Several statements in the Geneva Conventions suggest that physicians should not use their medical knowledge for anything other than the best medical interests of their patients.<sup>12</sup> However, the Geneva Conventions have been interpreted to apply only on the battlefield and to have no legal force concerning weapons development prior to war or in a site distant from the battle.<sup>13</sup>

If these newly developed weapons were intended to not be lethal, their use would cause less death and disability than current methods of warfare. Innumerable persons could benefit. Therefore, ethically, on this ground, it would be beneficial for physicians to help develop this weaponry. Doing so could be a further step towards a more humane war. From the standpoint of the just war concept of proportionality (using only those weapons whose harms are necessary), physicians' roles in developing these weapons might be not only justifiable but also mandatory. As John Courtney Murray states, "Force is the measure of power necessary and sufficient to uphold the valid purposes of law and of politics. What exceeds this measure is violence which destroys the order both of law and of politics."<sup>14(p208)</sup>

In addition to benefiting soldiers by not harming them excessively, the value this would further is utility (see Chapter 2, *Theories of Medical Ethics: The Philosophical Structure*). The greatest good for the greatest number would be gained by using (and developing) less than lethal weapons. From the perspective of these two values being furthered, doctors participating in this research would be justifiable. Dr. Knut Krieger, a scientist working on chemical and biological weapons stated, "if we do indeed succeed in creating incapacitating systems and are able to substitute incapacitation for death it appears to me that next to stopping war, this would be an important step forward."<sup>15(p315)</sup> Of course, the converse argument has also been advanced, namely, scientists' involvement in devel-

oping weapons that are even more lethal can prevent war and therefore produce an overall good. Albert Nobel, the inventor of dynamite, said in 1892 that "on the day that two army corps can mutually annihilate each other in a second, all civilized nations will surely recoil with horror and disband their troops."<sup>16(p19)</sup> However, although this could occur in theory, past history would suggest this is wholly implausible. The availability of nuclear weapons is, perhaps, a case in point.

The foremost argument against physicians, including military physicians, participating in research to develop weapons is that the physician is to use his medical knowledge only for the good of his patient. The Hippocratic writings and other codes of medical ethics describe this concept. Clearly people will suffer, at least temporarily, by having these weapons used on them. Thus, although in a relative sense, physicians doing this research would save lives, in an absolute sense, they are contributing to potential injury and death.

Some argue that the Hippocratic Oath, which proscribes causing suffering,<sup>17</sup> is only in force within the limited confines of the patient-physician relationship.<sup>13</sup> However, this claim fails to successfully negate the promise physicians make to their patients at large when becoming physicians. This promise is the major ethical value against physicians participating in developing weapons, including nonlethal weapons.

This promise gives the physician overarching responsibility toward patients in part because the greater society allows him exclusive privileges, such as dissecting a human cadaver during training. (This concept was discussed more fully in Chapter 1, *The Moral Foundations of the Patient-Physician Relationship*.) How then should these chief conflicting values, saving lives and physicians keeping their implicit promise to heal and not harm, be balanced or should they be balanced at all? There is a point at which a physician participating in a potentially evil practice becomes unconscionable, even if his intentions are to help. For example, society expects physicians not to participate in developing torture techniques, even though their assistance could prevent loss of life. Physicians' participating in torture seems well beyond this point and therefore would be ethically impermissible regardless of possible benefit. Use of less than lethal weapons, as opposed to the use of torture, may or may not be enough of a harmful action that physicians ethically shouldn't participate in developing them.

Discerning what will maximize the overall good is another concern. Currently the use of force, le-



thal or less than lethal, is usually thought to be a measure of last resort. Thus it is, or should be, presumed that all measures short of force should be exhausted before resorting to force. Yet, if less than lethal weapons are readily available, and if their use consistently avoids killing or permanently injuring people, it may be more likely that they will be used.<sup>18</sup> The threshold for use might be relaxed dramatically to allow earlier use of these weapons, without attempting to resolve conflict in ways that do not use force. Even if these weapons are relatively “safe,” using them could cause suffering and more frequent use could actually result in an overall increased net harm to people.

Physician participation may be proscribed for yet another reason. When dose response curves for medications being developed are generated, there is an endpoint beyond pure therapeutic effectiveness. Safety studies of new drugs demonstrate this. When a new drug is evaluated for safety and effectiveness, gradually increasing doses are used to identify the point of maximum effect without increasing unwanted effects as well. Because side effects occur with all medications, the point at which they are expected to arise must be determined and therapeutic doses must remain below this. For less than lethal weapons the same concept applies. Physicians could determine the maximum “safe” dose of electricity, or sound, or light to cause the optimal desired effect without killing or permanently harming the person. By determining this point, however, lethal or permanently disabling weapons (that exceed the “safe” dose) could be developed by using the physician’s data, even though this would be contrary to his intention. For example, finding a “safe” dose for laser weapons (ie, one that will not permanently blind) will determine, concomitantly, the dosage that would be blinding.

This potential risk is analogous to the one arising in physician participation in research “primarily” directed at defensive measures against biological weapons (discussed in Chapter 18, *Medical Ethics in Military Biomedical Research*). Although the physician may intend his data to be used only to improve defensive measures, the same data could quite effectively be used to improve weapons or delivery methods. However, there is a significant difference between research developing defensive measures against weapons and research actually developing those weapons, whether they are intended to be lethal or less than lethal. Research directed toward developing a weapon that would only stun an opponent would almost certainly be used to develop a weapon capable of killing that

opponent as well.

The key ethical question here, taking into account all these concerns, is whether military physicians doing research on military weapons should be permitted, partially allowed, or absolutely precluded. The ethical requirement of any policy allowing some participation is to discover what lines, if any, can be drawn and enforced. The risk of allowing some participation is that this judgment will be wrong.

### **“Bloodless” War**

Another contemporary policy issue involves the current societal desire for a “bloodless” war, one in which there are no American casualties. This issue has obvious implications for the combat commanders, but it also presents considerable concerns for medical planners and decision makers. The concept of a “bloodless” war has been around since at least the Persian Gulf War (1990–1991). This is in part related to the “CNN (Cable News Network) effect,” in which societal support for a military action is theorized to erode if American casualties become a consistent part of the televised news. This may or may not, in actuality, be the case. For example, a poll performed by the Triangle Institute for Security Studies completed in 1999 showed that the public has a greater tolerance for military casualties than was thought.<sup>19</sup> At the very least, however, public sentiment can cause a critical reevaluation of the goals of the war and the means used to prosecute it. The image of a dead or wounded American soldier is a compelling one. Even the discussion, or the image, of body bags can elicit visceral reactions. Television is certainly a major force in public policy because policy decisions are influenced by public reaction.<sup>20</sup>

Society must, of course, decide through its elected representatives what the military should do. The greater society therefore must have accurate information so that the military ultimately can serve the society it represents. Still, media coverage may evoke overly reactive responses among members of society by showing harrowing images of war. Society’s response to these images may result in its demanding premature termination of military actions that are resulting in loss of military and civilian lives.

Society might acquire an erroneous expectation of no American casualties, and also expect better medical care for wounded US soldiers than is possible. If this expectation is not met, public reaction may force a premature withdrawal from war. For

example, as discussed previously, if less than lethal weapons are developed, society might expect markedly reduced casualties. This could lead to an expectation of almost total protection of American soldiers from injuries and death. Analogously, as medical technology has improved, the rate of soldiers who die from their wounds after they enter the military medical system has decreased. The American public, as a result of this improvement, may come to expect to a greater extent that any wounded soldier, once he gets to medical care, will survive his injuries. Dr. Stephen Joseph emphasized this perception in a speech to the National Security Industrial Association Medical Technology Education Conference in 1996. He said:

Additionally, there is a growing popular expectation that our military operations should be without casualties. This, in the age of instant global video journalism, has significantly raised the expectation for sophisticated casualty care and medical services whenever and wherever casualties may occur.<sup>21</sup>

Thus, the same standard that applies to civilian emergency rooms (or to military hospital emergency rooms during peacetime) might be applied to the battlefield. This ignores the reality of the austere, mobile, and changing combat situation. There will be shortages of medical personnel and equipment on the battlefield. The battlefield is fluid. The area within or around the medical facility could actually become the location of the fighting. Further, which combatant holds combat superiority can change rapidly. This fluidity can greatly affect medical facilities' treatment capabilities as well as their ability to evacuate the wounded soldier. It is impossible to provide the same level of medical support in any deployed scenario as can be expected in a state-of-the-art medical facility, military or civilian.

Military medical planners and practicing military physicians alike struggle with the issue of determining the medical capability that will be deployed to the battlefield. The balance between providing state-of-the-art care and recognizing the reality of logistical and transportation support capabilities weighs heavily on all personnel involved in these

decisions. These ethical decisions will become more difficult in the future, because medical technological capabilities will continue to improve, but the improvements will likely require increased logistical and transportation assets. The reality of this situation is shown in the case study provided in Exhibit 26-1. This also demonstrates a practical application of attempting to use data to guide the decision.

Further, if deployed medical capabilities become more limited, physicians are likely to suffer psychological effects from failing to save wounded soldiers. This agonizing experience contributes to physician "burn out" in any context, and it is likely to increase in degree as medical advances continue to occur. Physicians could suffer greater adverse psychological effects from increased pressure to practice flawless medicine in a hostile environment. This pressure could be accentuated by the presence of news reporters with capability for immediate, worldwide, and graphic coverage of medical facilities and their patients.

The chief ethical dilemma this poses is the extent, if any, to which military planners should be able to limit reporters' access to the scene of combat and medical care. Limitations already have been imposed because of the compromises to security that media coverage can cause, but the news organizations and the public expect, and perhaps should expect, almost unlimited and instantaneous coverage of the battlefield when security issues aren't a factor. Then, as discussed, viewers of this news coverage could observe and be critical of any degradation in medical capability, as mentioned in Dr. Joseph's speech.<sup>21</sup>

Planners will also need to balance soldiers' expectations for state-of-the-art care, and the morale effect this has on their performance, with the need to be able to deploy and maintain necessary medical services in combat areas. Perhaps this is one of the most difficult decisions military medical officers will face in the future—how to integrate and utilize the remarkable new technologies that are certain to become available while recognizing the limited financial and transportation resources available.

The next section will examine some examples of potential future technologies that may be considered for soldiers.

## FUTURE ISSUES AFFECTING INDIVIDUALS

The individual soldier is the American military's greatest asset.<sup>22</sup> His risking life and limb is critical to protecting society. Society therefore has an affir-

mative obligation, in turn, to protect all soldiers to the degree possible. Therefore it is ethically appropriate to apply advances in technology when they

**EXHIBIT 26-1****A CASE STUDY IN LOGISTICS**

Consider the following scenario, which reflects problems being faced by the Army Medical Department at the moment this is written. At the highest levels of the Department of Defense (DoD), emphasis is being placed on the rapid deployment of lightweight but powerful combat units that are expected to sustain themselves without outside support for 72 hours. From the medical standpoint, this will mean that logistic constraints placed upon the deployment will necessitate an austere medical footprint that, in essence, will be just a semblance of medical support found in earlier wars. This problem is compounded by the lack of any air evacuation of casualties for up to 72 hours. Such an operational plan is likely to result in mortality and morbidity statistics for wounded and sick soldiers that will be greater than recent historical norms.

As a practical example of this decision-making dilemma, let us assume that a combat operation is to be carried out by an infantry company of 250 men with deployed medical capabilities consisting of a physician assistant (PA) and four medics, who have minimal medical capabilities other than first aid including initial resuscitation with fluids. The mission is to destroy an enemy position thought to hold a high-ranking enemy leader. At the last minute, command logisticians make available an additional C-17 aircraft for the planned operation. This airframe can carry either three all-terrain armored fighting vehicles or five humvees carrying the equipment for a forward surgical unit. The line commander argues that the additional combat firepower will ensure the rapid defeat of the enemy and consequently fewer American casualties. The medical commander states that he needs the additional medical resource to ensure that otherwise minimally treated and unevacuated casualties will receive at least some surgical care, preventing unnecessary mortality and morbidity. Who is right?

At first glance we may be able to calculate who is right but only if we know how to assign values to medical risks and military necessity. Of course, we will first need reliable estimates of what the added firepower will accomplish and how much the forward surgery unit might reduce mortality and morbidity. Such data are of the type actually available from the TRADOC (Training and Doctrine Command) warfighting laboratory and from AMEDDC&S (Army Medical Department Center and School). The TRADOC scientists predict that the added firepower will shorten the battle from 3 days to 2 with a corresponding reduction in casualties from 25% (first day: 10%, second day: 5%, third day: 10%) to 15% (first day: 10%, second day: 5%). In actual numbers, this will mean 38 casualties of whom 8 (20%) will be killed in action (ie, die within minutes after wounding) and 30 will live long enough to be treated by the PA and medics. We can estimate that five (17%—similar to the Crimean or American Civil War outcomes for deaths in untreated casualties) of the wounded will die during the ensuing 2 days and that 10 will suffer from potential disabling morbidity such as grossly infected open comminuted fractures of the legs or invasive abdominal sepsis.

Now let us estimate the outcome associated with the deployment of a forward surgical unit rather than added firepower. There will now be 62 casualties of whom 12 (20%) will be killed, with mortality of the initial survivors being 2 or 3 (5%—similar to recent historical norms). Morbidity among those surviving to be evacuated will be proportionately lower, but because of the increased actual number of casualties will be similar to that found in the first scenario.

One can see that there will be a slight survival advantage in terms of a soldier's risk of being fatally wounded if the forward surgical unit is deployed, but this would disappear if the added firepower shortened the battle to 1 day. This method of analysis is only as good as the data used to determine the casualty statistics. From the practical standpoint, the use of data for deciding what is good is fraught with problems arising from the inadequacies in the data fed into the models. Frequently the data will simply not exist and even if data do exist, the larger the battle, the smaller will be the probability that the predicted solution will correspond to what actually transpires.

From a deeper perspective, the fundamental problem remains that using data does not allow us to decide which of the two moral visions of good should be chosen. In the example given above, the medic's view of the good might be acceptable to the warrior moral intuition of what is good; after all his side wins. But what would the warrior's position be if he were to know that the extra day taken to capture the enemy position allowed the high-ranking enemy to escape? Is the increased mortality and morbidity of deploying increased combat fighting power rather than surgical support worth the capture of the enemy leader? Who is to decide? The simple fact is that the using data is not likely to resolve the ethical conflict.

(Exhibit 26-1 continues)

**Exhibit 26-1** *continued*

In reality, the line commander will likely make the decision. His ethic will predominate, if for no other reason than that the law is on his side—the law gives him the authority to decide. What can the healers do if the decision is to go for additional combat firepower in place of medical support? Of course, as individuals, they can refuse to serve and possibly be court-martialed (and by doing so possibly assure that medical support is even more inadequate). Or they can do their duties as the medical staff officers for the line commander by assuring that the highest levels of command have a clear understanding of what the lack of medical support will mean.

**COMMENT:** As this scenario demonstrates, using data to guide decisions is only helpful in framing the questions to be asked and in helping to decide who is authorized to make the ultimate decision. It may also help the person authorized to make the decision to examine the alternatives and the risk/benefit aspects of each. Clinical medicine is filled with uncertainty. It is never clear exactly how a patient will respond to the proposed treatment. Clinicians must make decisions with incomplete and conflicting data every day. Similarly, military missions are fraught with uncertainty. This is particularly true for combat missions where the generally accepted truism is “the plan of operation only lasts up to the ‘line of departure.’” In other words, all plans are theoretical and are subject to uncertainties once the battle is engaged. It is evident from this scenario that combining two disciplines filled with uncertainty will only accentuate the difficulty in making decisions. Methods for examining the decision-making process are discussed in Chapter 27, *A Proposed Ethic for Military Medicine*.

Source: Ronald F. Bellamy, MD, FACS, Colonel (Retired), Medical Corps, United States Army; Military Medical Editor, *Textbooks of Military Medicine*, Borden Institute.

can be beneficial to the soldier even when it might not be justifiable to apply these advances in civilian contexts. In fact, it may be not only ethically justifiable but also mandatory to give them less than fully tested treatments under circumstances in which soldiers who have been wounded would otherwise die. This is based ethically on the concept of compensatory justice. This concept, which will be discussed in greater detail in Chapter 27, in this context involves a societal decision to confer special benefits on individuals as compensation for sacrifices made on its behalf. For the purposes of this discussion, these special compensations will represent earlier or greater use of technological advances that are likely to benefit soldiers. This is not research, it is treatment. It is most ethically comparable to treatments for acquired immunodeficiency syndrome (AIDS) or cancer given for compassionate reasons in civilian contexts prior to meeting usual approval criteria because otherwise these patients would die. It is also related to the use of preventive agents not fully tested as discussed in Chapter 12.

To illustrate this concept we will discuss some representative possible technological advances. As mentioned previously, the use of these advances should be considered only when they seem unequivocally beneficial to the soldier, as when it is certain that without them he will die. Even though they are not fully tested, they would then be beneficial and, thus, a compensation for the soldier's willingness to give up his life to protect society.

### **Telemedicine/Telepresence Surgery**

There have been many recent advances in the use of technology for information transfer and use. These extend from the simple means of using electronic mail for communication and transferring medical information, through remote intervention using video consultation, and even to operations performed at a distance by a surgeon remotely controlling a robotic surgical arm. There are many ethical and legal issues in this area, both for civilians and for the military. We will concentrate here on those having particular relevance for the military.

Telemedicine is already in use within the military, as it is in the civilian sector. Distant consultations have been accomplished in dermatology, surgery, psychiatry, pathology, and internal medicine.<sup>23–25</sup> There are departments of telemedicine in several military medical centers. Issues of credentials and scopes of practice are currently being addressed, but physicians in the military have encountered these issues in many deployment situations, and in these contexts their application may be different.

One policy decision arising is the extent to which military medical experts should be present in deployed situations. Consultation through telemedicine may be effective in extending some clinical specialists' ability to remote areas, but there should not be an expectation that this is equivalent to having an experienced clinician on the scene. This is because there are many subtle clues to clinical conditions



that do not transfer by pure video and audio transmission. Further, history taking may be made more difficult by the impersonal nature of the remote presence, although, somewhat surprisingly, this has not been as true as may have been expected. These “impersonal” approaches may be surprisingly effective, for example, in psychiatry.<sup>26,27</sup> There are also some specialties that may be more difficult to practice from a distance (eg, surgery) although others may be quite reasonable (radiology or pathology). The relative benefit/burden of each procedure in a military context must be newly assessed.

Electronic medical records are another obvious use of telemedicine. This could be particularly beneficial for the military, with its frequent deployments as well as providing medical care in remote areas. Being able to securely access the full electronic patient record from any medical facility with access to the Internet (or equivalent means of transferring information) would facilitate military physicians’ caring for patients. The degree to which restrictions should be placed on electronic medical records for purposes of confidentiality is unclear. Legally, the Health Insurance Portability and Accountability Act (HIPAA) of 1996 is now being applied but it was intended primarily for civilians. Ethically, the military must develop policies and procedures meeting the requirements of these regulations, if possible, but these may have to be redesigned to meet soldiers’ and the military’s different needs.<sup>28</sup> If this is not possible, further legislation particularly adapted to meet the military’s unique

requirements will be necessary.

Another area currently being explored is that of remote telepresence surgery. Using this technology, a surgeon in a distant location could actually operate on a patient by using virtual reality controls of a robotic surgical arm with surgical instruments.<sup>29</sup> One of the issues posing ethical concern involves tactile feedback to the surgeon. Much of surgery is now done by “feel.” Being able to palpate the tissue using telepresence surgery may be difficult currently, but this may be overcome with future developments. Force feedback (ie, the ability of the remote surgical instruments to calculate the pressure on tissue, the tissue’s response to that pressure, and then instantaneously transfer that tactile data to the hands of the remote surgeon) from the remote surgical instruments is also being perfected. In 2001, surgeons in New York removed a gallbladder from a patient in Strasbourg, France (Figure 26-1) using a dedicated transatlantic communications cable to transfer the immense amount of data to allow this to be performed safely.<sup>30</sup>

An example of such new ethical difficulties telepresence surgery in the military could pose involves those of a battlefield casualty who is operated on in an armored vehicle far forward of a traditional deployed hospital. Field tests have been performed using a wireless link over a 5-kilometer distance and were successful.<sup>31</sup>

One problem posed is transmitting the immense amount of data with sufficient speed in a manner that the transmission cannot be interrupted either



**Fig. 26-1.** A patient in France (a) and one member of a team of surgeons in the United States (b). The surgical team remotely removed this patient’s gallbladder. The operation was performed using a dedicated trans-Atlantic cable and remotely controlled robotic surgical instruments, similar to a standard laparoscopic cholecystectomy performed routinely today. Photographs reproduced with permission from Institut de Recherche contre les Cancers de l’Appareil Digestif (IRCAD), Strasbourg, France.

by accident or intentionally by the enemy. The current battlefield uses electronic data gathering and sharing to make tactical decisions. These electronic mechanisms have limitations in terms of availability of broadband transmission space. It may well be difficult for medical use of these transmissions because they compete with the military mission requirements. A comparable civilian example might be the request for individuals to stay off both regular and cellular phones during an emergency (such as the attacks on September 11) to allow firefighters, police, and rescue workers full use of those communication networks. Ethical decisions will need to be made to determine the degree of certainty the electronic link will survive on the battlefield.

A further concern in making these decisions is the moral weight that should be given to the perception of the wounded soldier. In a talk to physicians at Fort Hood, Texas, Colonel James M. Lamiel, a physician who had previously been a Cobra attack helicopter pilot, discussed his personal experiences as a casualty after his helicopter was hit by enemy fire in Vietnam.<sup>32</sup> He was able to fly himself to the nearest Army hospital and was immediately operated upon successfully. He feels strongly that his outcome would not have been as successful had the surgical team been operating from a remote location. His perception of this difficulty, if accurate, would exemplify the concern identified previously: there might be clinical clues that can only be received, and processes that can only be performed, "in person." Soldiers sharing this belief, whether true or not, might become demoralized. For example, soldiers, particularly under the stress of war, may find the absence of a surgeon disconcerting. They may be fearful of the new technology, or they may be overly fearful if the surgeon is not at the site of combat. That fear may affect their outcome.

### **Pharmacological Optimization for the Battlefield**

Military physicians possibly can enhance soldiers' capacity to fight effectively during combat by using mind-altering drugs. These same medications may also help them by reducing their fear or the development of posttraumatic stress disorder.<sup>33</sup> Both these effects may be what soldiers would want. Nonetheless, their use may best be limited or contraindicated for ethical reasons. The analysis of when, if at all, these drugs should be used illustrates the overriding principle outlined throughout this book: Namely, military physicians should adhere to their traditional medical values, or "be doctors first," and depart from these values only as

military combat necessities require this. This is illustrated particularly by the first two of the four drug categories considered here. These two categories are: (1) short-acting sleep-inducing medications and (2) stimulants.

The principle noted above would suggest that a starting point to answering questions regarding the acceptable use of these drugs in the military is to ask what uses are permitted in civilian settings because this should be considered as an initial ground for comparison. An example here might be medical students and residents. Both these drugs could be given out routinely to medical students and residents to increase their sleep during the brief opportunities for sleep that they have and to enhance their alertness when they are sleep deprived. This is not, however, done. Why?

The analyses below will suggest some likely answers. More important than the answers in this context, however, is the approach we will use. This will exemplify the approach that we have suggested is optimal for analyzing military medical issues. That is, if sleep medications and stimulants are not given to doctors in training even though this might benefit both them and their patients, it should be presumed initially that military physicians should not give these medications to soldiers unless there is some exceptional ground for doing so such that for combat reasons, this is necessary. As the analysis below will suggest, this may not be the case.

### ***Sleep-Inducing Medications***

Soldiers often have decreased sleep during combat.<sup>34,35</sup> In part this is due to the nature of war. In addition, under combat conditions, the fear and anxiety they experience may heighten the activity of their central nervous system. As a result, when they can sleep, they may not sleep as well. Under these conditions, medications that induce sleep would seem ideal, especially if they worked rapidly and had a short half-life so that soldiers could be awake and alert after sleeping for only a few hours.

Some medications show promise of fulfilling these criteria and they are now being tested to help determine the extent, if any, to which they would be beneficial during combat. The drug temazepam or Sonata,<sup>®</sup> for example, works rapidly and its soporific effect is over after 4 hours. It has few side effects and is unlikely to impair soldiers' functioning once they awaken.<sup>36,37</sup> There may still be ethical or medical reasons it should not be used, however. First, it may be addicting. Over time, soldiers may become psychologically, if not physically, depen-

dent on taking it. They may also build up tolerance to the medication and it may lose its effectiveness.

Even if this does not occur, this medication is unlike a vaccine for anthrax or a medication to prevent soldiers from acquiring malaria in that it may not be necessary for them to function effectively and, moreover, it directly affects the brain. In regard to this latter effect, there should be greater concern because these interventions may affect the very basis of these persons' identity. These drugs affect the neurocircuitry of soldiers' brains. Just as a single exposure to cocaine may alter the individual's subsequent behavior even though it involves only a single instance of altering the brain with a chemical substance, these drugs could have permanent effects and alter what soldiers experience in the future. They may alter who these soldiers, as it were, *are*. This is more ethically problematic if the use of these drugs is made mandatory. Even if they are not mandatory, however, in reality their use might be as problematic. This is because, in this environment, soldiers might confront strong pressures from others to take them because the extent to which they are rested may affect not only their own but other soldiers' lives and limbs. Thus, their freedom to choose may be compromised due to this environment's being in this way inherently coercive.

This concern regarding inherent coercion was raised most famously in regard to a research proposal made in Michigan decades ago.<sup>38</sup> Psychosurgery was proposed and accepted by a man then in jail who had been convicted of rape. Concerns were raised, notwithstanding this prisoner's willingness and, indeed, eagerness to have this surgery, despite its potential benefit to others. The first concern was that he was not sufficiently free to make this choice because it might increase his chances of obtaining parole; the second that this surgery could change him as a person.

A sleep medication is, of course, hardly psychosurgery, but this illustrates, regardless, both the ethical concerns primarily at stake. They both have greater relative moral weight, of course, because unlike anthrax vaccine and antimalarial medications, the benefits of these medications to these soldiers and to the military of soldiers taking them is substantially less. These medications could, on the other hand, enable soldiers to be at slightly less risk of being harmed themselves. Compensatory justice might, then, be an ethical basis for allowing military physicians to give these drugs to soldiers who wanted them during combat even though it might be that they would not be made available under "analogous circumstances" to doctors in training.

As we have already noted, soldiers voluntarily put themselves in harms way for the greater society. Society accordingly should have an obligation to them, in turn, to reduce the degree to which they are at undue risk as much as this is possible.<sup>39</sup> However, if used, these medications should only be offered to soldiers who wanted them, as opposed to their being mandatory as was the case with anthrax vaccine.

### *Stimulants*

The next category of medications now also being considered as a "top contender" for use on the battlefield is psychostimulants. Again, these should be short-acting medications, such as amphetamines and Ritalin®.<sup>40,41</sup> These medications would allow soldiers to remain more alert. This might protect them somewhat from fatigue-induced dangers to their lives. By being more alert they also might be more effective against the enemy.

Once again, however, there is a risk of addiction. With a new potential drug, modafinil, this risk may be reduced, but nonetheless this remains a concern.<sup>42,43</sup> Soldiers might also want to take these drugs for their pleasurable effect. In addition, whether used in normal or excessive amounts, their use could result in adverse symptoms such as restlessness and agitation or, in rare cases, in hypervigilance, paranoid feelings, and psychosis. There is also the concern that these medications may affect these soldiers' minds.

In some contexts, such as when pilots are flying, they may put not only themselves but also others at risk more than they would in other contexts.<sup>44</sup> If they are less than fully alert, their judgment as pilots may become impaired. This difference may be not only morally relevant but of a sufficient magnitude to warrant these soldiers to be able to choose to take stimulants despite possible risks to their mental health and personal "identity."

A factor in this case that may warrant exceptional moral weight is that soldiers, such as pilots, may not want to take these drugs so much for themselves as to take them so that they are less likely to place their fellow soldiers at unnecessary risk. Inasmuch as avoiding this risk may be exceedingly important to them, it may be that their preferences should be respected and they should be given this option, even if civilian pilots would not, on the ground of compensatory justice. However, their having this option poses the identical concern to that of sleep medications regarding inherent coercion. Their choosing to take these drugs would, of course, have



to be voluntary even if limited to situations such as pilots who have unique responsibility requiring full alertness. Care would have to be taken, then, to insure that subtle coercion was not exerted by command or soldier-passengers potentially at increased risk to pressure pilots to take these drugs.

This kind of risk can arise in a wide variety of contexts. An unusual context especially illustrating this variation involves astronauts. They sometimes are offered the opportunity to serve as subjects of research while they are up in satellite missions. As with other research participants, they are explicitly permitted to choose to drop out of studies at any time, which in this context means even if they are in the midst of a mission. In reality, however, this may be virtually impossible because of implicit pressure from three sources: (1) those who decide who flies, (2) the public, and (3) their fellow astronauts. The persons who decide which astronauts get to fly may not let them fly again. The public, if aware of this refusal, might utter an outcry at the expenditure of funds, namely millions of dollars that the loss of these research results would, in part, waste. And fellow astronauts, who remain in the research and, thus, continue to undergo equivalent risks, may feel betrayed. These risks of inherent coercion are great but may not be so great that they should prohibit this practice. This example illustrates, then, another context in which the benefit to others may justify leaving individual patients at risk.

Returning to the issue of using stimulants for combat pilots, there is also a concern that allowing these pilots to make choices that could place others at relatively greater risk (for instance, by not using drugs that could increase the level of alertness of the pilot) could bring about a sense of separation and distrust between those pilots and the others dependent on them. The loss of bonding that could result would be deleterious to the military mission. This could cause more harm than allowing them to take stimulants would.

### *Drugs to Decrease Anxiety*

The two classes of medications considered above are those considered most seriously as potentially benefiting soldiers and enhancing the military's mission. Other classes, however, might be considered, especially if new medications are developed. Medications could, for example, decrease soldiers' fear during and after battle, or even increase their willingness to fight.

The first of these approaches, reducing soldiers' fear, could involve military physicians giving sol-

diers psychotropic medication before or during combat. Drugs now available that could further these outcomes vary from benzodiazepines such as Valium® to antipsychotic drugs such as the new atypical antipsychotic medications.<sup>45,46</sup> The latter are much less likely to cause serious side effects. Both would have to be given at a low-enough dose that soldiers' combat performance would not be adversely affected. These medications could reduce patients' emotional pain by diminishing their fear. This could be done, as stated, both before and during battle. Conceivably, these soldiers could also benefit later on. They could experience less crippling aftereffects after battles, such as the symptoms of posttraumatic stress disorders (startle responses and emotional numbing). Without this fear, they might also think and act more effectively. It is also possible that they might increase the degree to which they subsequently have negative emotional outcomes.

A disadvantage of all the benzodiazepines such as Valium® is that they may be addicting. The antipsychotic drugs even in small doses also may pose significant risks such as that of tardive dyskinesia—irreversible involuntary movements involving especially the mouth and limbs. Perhaps more significantly, benzodiazepines could result in soldiers fighting in a different emotional state. These drugs can switch off persons' "normal" personality and replace it with another. This is the effect alcohol has when it causes inebriation. A related concern is that this may bring about state-dependent learning. Studies show that animals—and humans—who learn material in one state, as when their brain is bathed in benzodiazepines, may recall this same material later only if this same substance is reintroduced.<sup>47</sup>

The ethical ramifications of state-dependent learning are two. First, the use of these fear-reducing medications may induce a different identity in soldiers entering combat. One may be an identity in which they will much more readily fight. Knowingly taking steps that will alter their personality, even if this enhances their fighting skills, may involve using soldiers unacceptably as means to the military's or society's ends. The specter of altering soldiers' minds in this way to be able to send soldiers into combat in a mind-altered state is perhaps unconscionably exploitative. Second, as already indicated, the altered states these medications induce may affect them adversely over time. These drugs could further these persons developing somewhat different, mutually exclusive "personalities" or a proclivity to what is called a dissociative state. The degree, if any, to which this could occur is un-



known and perhaps unknowable. If this did occur, they normally might act like themselves, but when provoked might be more prone to responding with excessive aggression. In light of these concerns, it may be more reasonable to not use these drugs, even to the extent of not using them if and when soldiers wanted them. This might be an instance, then, in which contrary to the prior examples, the principle of compensatory justice as applied to respecting soldiers' autonomy shouldn't prevail.

The same drugs, such as Valium,<sup>®</sup> if used at higher dosages, could, however, not only reduce soldiers' fear and anxiety, but also enhance their willingness to fight. This is similar to alcohol, which temporarily depresses areas of the brain that inhibit persons responding solely on the bases of what they feel. Thus, they lose their usual judgment and often are unusually aggressive. Alternatively, these or other drugs may result in soldiers feeling emotionally more numb.<sup>48</sup> If this occurred, they could be less vulnerable to feeling ambivalence over what they must do during combat and as a result they might carry out their aggressive impulses more readily, which could be good in regard to the fulfillment of the mission. Yet, this aggression could also go too far. Even if this does not occur, by using these drugs to enhance soldiers' fighting ability, military physicians nonetheless would be violating these soldiers' dignity. They would be creating sociopathic behavior with chemicals. This again would represent using these soldiers primarily as means for military ends.

The use of these drugs in this manner would be ethically problematic also because of other possible aftereffects. If, for example, they had acted outside their normal moral constraints, this could result in their later suffering from crippling guilt over what they had done. Or, if this hadn't occurred, as may be much more likely, they still might be harmed by having more difficulty "processing" the combat experiences they have had so that they could leave them behind them and then get on better with their lives. How they experience what they have done may, in any case, be affected by the outlook of their society. When society can appreciate the sacrifice soldiers make, soldiers can more easily take pride in what they have done and then reintegrate themselves into society. After an unpopular conflict, such as the one that occurred in Vietnam, however, this may be more difficult.

This may exemplify, then, another way in which military physicians might do more than they have in the past. They might, for example, help establish greater opportunities for soldiers to continue to be

able to meet on a regular basis with other soldiers as they leave the military and take on civilian careers.

The above ethical analysis, as all such analyses, should then consider alternatives to present practices. In this instance, interpersonal psychological interventions also could reduce soldiers' anticipatory anxiety before battle and their fear once it occurred. These, even presently, could be offered. Cognitive restructuring techniques could help soldiers distinguish adaptive from maladaptive thoughts both before and during battle so that if they are maladaptive, they could replace them.<sup>49</sup> As opposed to using drugs, this approach would be more beneficial to soldiers because they could retain their same identity during combat. The skills they learn could also be used afterwards to enhance their everyday lives. This process already takes place when soldiers are preparing for combat during basic training. This learning takes place during military exercises and practices and from informal discussions with those who have served in combat before.<sup>50,51</sup>

The question remains, however, whether this preparation could be improved. State-of-the-art cognitive restructuring techniques used to relieve patients' anxiety in civilian contexts could be adapted for, and used in, military contexts. Military physicians could play an important role in bringing this about. There may be unequivocal ethical reasons they should be doing this even now. If it could reduce avoidable harm, the military has still an additional reason for providing soldiers this help. That is, the military has implicitly promised soldiers that it will do all that it can to prevent their suffering unnecessary mortality and morbidity. This intervention, as opposed to using anxiety-relieving drugs, should perhaps be available to all on the basis of compensatory justice. If they survive during combat, this should reduce their fear and this in turn the subsequent risk of psychiatric morbidity.

Society cannot be reminded too often of the sacrifices soldiers make for the greater society. Society's having this awareness, to the degree this is possible, would seem a minimal requirement of compensatory justice. The kind of media attention soldiers should always have is exemplified, for instance, by the recognition given firefighters who lost their lives in the terrorist attacks in New York City on September 11, 2001. When and if society again loses this vision, civilians as well as those in the military should play an increased role in bringing soldiers' sacrifices to society's attention. This obligation may be ethically greater for civilian and military doctors because it represents a preventative medical intervention and thus is within their implicit prom-

ise when becoming doctors to do all they can for their patients. In this instance, this involves doctors pursuing initiatives on patients' behalf. This obligation to act politically may not exist when it would compete with their providing patient care. It is enhanced, however, when they are the only ones who could initiate political action, as in this case greater societal awareness, more successfully. Thus, although compensatory justice should always be a goal, how this should be achieved requires a balancing of military and soldiers' needs and benefits. Drugs may not be indicated. Nonetheless, interventions that can reduce this morbidity and ease their reintegration into society may, though indicated, still be lacking.

### **Lazarus Project**

As mentioned previously, because soldiers risk their lives on behalf of the greater society, to help compensate them for this risk, it might be not only justifiable but also even mandatory to give them access to treatments prematurely, though the treatments had not been fully tested, if the treatments and the treatments alone had the potential of saving their lives. There are several potential treatments that could benefit soldiers in this way. An innovation that has been considered, for example, was a newly designed apparatus that could be placed on soldiers' extremities to prevent them from dying due to shock after they had been severely wounded on the battlefield. An innovation currently being submitted for an institutional review board (IRB) review involves a new substance that could be applied on the battlefield that would be more effective in stopping soldiers' bleeding.

Providing less than fully tested innovations such as these to soldiers before civilians on the ground of compensatory justice is essentially a new ethical principle that has not yet been developed or applied. Thus, the theoretical bases for doing this, much less the IRB standards for approving such innovations on the battlefield, barely have begun to be examined.

For purpose of this discussion, the example used to illustrate the kinds of ethical problems these innovations could raise will be the Lazarus Project. This project has been sponsored and funded by the US Navy since 1996.<sup>52</sup> This example is particularly useful as a paradigm for other innovations that could be used because it clearly illustrates the complexity of the ethical issues that could be involved.

The Lazarus project is named for the biblical person whom Jesus raised from the dead (John 11:1–

44).<sup>53(p419)</sup> It is an attempt to prevent soldiers from dying on the battlefield so that they could be rescued and brought to medical facilities that could give them treatment to enable them to survive. The primary goal is to increase the tolerance of organ systems to the global ischemia associated with cardiac arrest and hypoperfusion. Because this theoretically could save the lives of soldiers who would otherwise die, it could warrant being included in combat casualty care.

Overall combat mortality has changed little since World War II. This is because the vast majority of those fatally wounded (approximately 90%) die before entering the medical system.<sup>54</sup> These are classified as killed in action (KIA). Some of these have massive head injuries or overwhelming total body injuries, but approximately 50% of KIAs die of exsanguinating hemorrhage. It has been estimated that approximately 12% of the total combat dead could have survived their hemorrhage if they had been able to live until they could receive definitive treatment.<sup>55–57</sup> Routine resuscitative procedures are of little effect for the blood loss from these massive vascular or solid organ injuries.

Associated with the hypovolemia and resultant hypoperfusion of these casualties, is a deficit in the supply of ATP (adenosine 5'-triphosphate, a chemical key to survival) relative to the demand for it. This imbalance results in cellular damage, even before cardiac arrest, which is accentuated by the total loss of perfusion once cardiac arrest occurs.<sup>58</sup> Once the imbalance between ATP supply and energy demand reaches critical levels, the cell undergoes significant negative changes that cause further injury even if effective reperfusion can later be accomplished. (This injury, known as reperfusion injury, involves complex physiologic, cardiovascular, metabolic, neuroendocrine, and immunologic responses and is related to oxygen-derived free radicals, cytokines, and other hormones and substances developing during ischemia and resuscitation.<sup>59</sup>)

There is debate as to whether any attempt to increase blood flow (and thereby the supply of ATP) through standard fluid resuscitation methods is effective.<sup>60</sup> If not, fluid resuscitation could not save these soldiers' lives. There is, however, another possibility. This is to attempt to reduce the demand. If the need for ATP can be decreased, patients may be able to survive these severe but reparable injuries. The Lazarus project would explore ways to save lives by decreasing the need for ATP or by actually arresting cellular metabolism (so that there is no need at all).

There are at least two methods that could de-

crease cellular metabolic requirements—hypothermia and chemical agents. Mild hypothermia to protect the brain during and after cardiac arrest is currently being considered and shows some promise in both animal models and in humans.<sup>61–64</sup> Hypothermic suspended animation (the “temporary” apparent death of the organism) with cardiac arrest has been able to preserve viability of dogs for up to 2 hours. However, this method requires a large volume of cold solution being injected rapidly into the aorta.<sup>65</sup> This is currently impractical on the battlefield due to the large volumes of cold solution required. The other method, which may be more practical on the battlefield, involves chemical agents that directly decrease cellular metabolism. This, too, would prolong soldiers’ lives until they could receive definitive care. Unfortunately, these agents are not currently showing much promise in experimental models.

Cellular metabolism can be decreased or suspended in two ways: (1) by stabilizing the cell membrane or (2) by decreasing the rate of intracellular metabolic processes. Cardiac surgeons have used potassium solutions to stop the heart in a relaxed state (a condition that uses minimal ATP) when they operate using cardiopulmonary bypass machines. They also use cold solutions to decrease the metabolic rate in the cells of the heart when they operate. However, by suspending cellular metabolism in this way, cells and organs cease to function. For the heart, this causes cardiac arrest.

This is obviously a somewhat radical approach to prevent a still more devastating problem. It causes “temporary” death of the cells and organs to preclude worse cellular damage that would lead to “permanent” death of the organism. The agents used to cause suspended animation would need to be introduced before uncontrolled cardiac arrest (caused by inadequate ATP supply) occurs. If this uncontrolled cardiac arrest occurs, as discussed earlier, further cellular damage is inevitable. Additionally, the agent needs to perfuse the cells in all organs needing protection, not just the heart. If uncontrolled cardiac arrest occurs, there is no effective circulation of the blood and it is impossible for the agents to reach and perfuse these cells. Therefore, metabolic arrest (“suspended animation”) must be induced before uncontrolled cardiac arrest occurs from blood loss.

One paradigmatic ethical issue that arises from this example is the decision to proceed from animal studies into clinical studies. This is a key problem in giving untested treatments without informed consent even when the soldier will certainly die

without them. Further, this research is of necessity performed in an emergency setting. Informed consent in research performed in an emergency setting has prompted the National Institutes of Health (NIH) to approve a concept known as “community consultation” for emergency protocols.<sup>66</sup> This involves attempting to determine the prevalent opinions concerning an intervention within a community and extrapolating this opinion as a “majority” consenting to a research protocol. If the majority of the members of a community would be willing to accept the risk of a research protocol for its benefit to the persons involved, consent is presumed to exist for patients in an emergency situation and the intervention could be performed without specific individual consent. However, the issue of “community consultation” in the military has not been fully evaluated (see Chapter 11, *Physician-Soldier: A Moral Dilemma?* and Chapter 19, *The Human Volunteer in Military Biomedical Research*).

Giving soldiers earlier or greater access to these technological advances may be acceptable under the concept of compensatory justice discussed earlier. Some increased benefit to soldiers, as stated, may be not only ethically justifiable, but optimal. Using this example as a paradigm, there would be significant ethical issues involved in employing this potentially beneficial intervention on the battlefield. There is the very real danger caused by inducing cellular metabolic arrest and cardiac arrest before this would naturally occur. Even though the intention is to benefit soldiers, using any treatment before sufficient human data are available is ethically problematic because it involves applying the technology before it has been fully evaluated. Therefore, this should occur only in an attempt to save individuals who have been wounded and who otherwise would certainly die or have devastating irreversible injuries such as brain damage. This technology would be used only because it offered the potential of preventing these outcomes.

This use would concomitantly provide new data regarding these innovations, and this would be a second positive outcome. However, this gain would be a wholly unintended secondary outcome. This secondary gain could make the use of these untested treatments exceedingly vulnerable to misuse. If they were used for the purpose of gathering data, rather than to save lives, this would be unconscionable. It would be precluded ethically, for example, under the Nuremberg Code.<sup>67</sup>

Even if the research can be performed ethically, there are still ethical issues associated with its specific use in combat. The decision to induce meta-



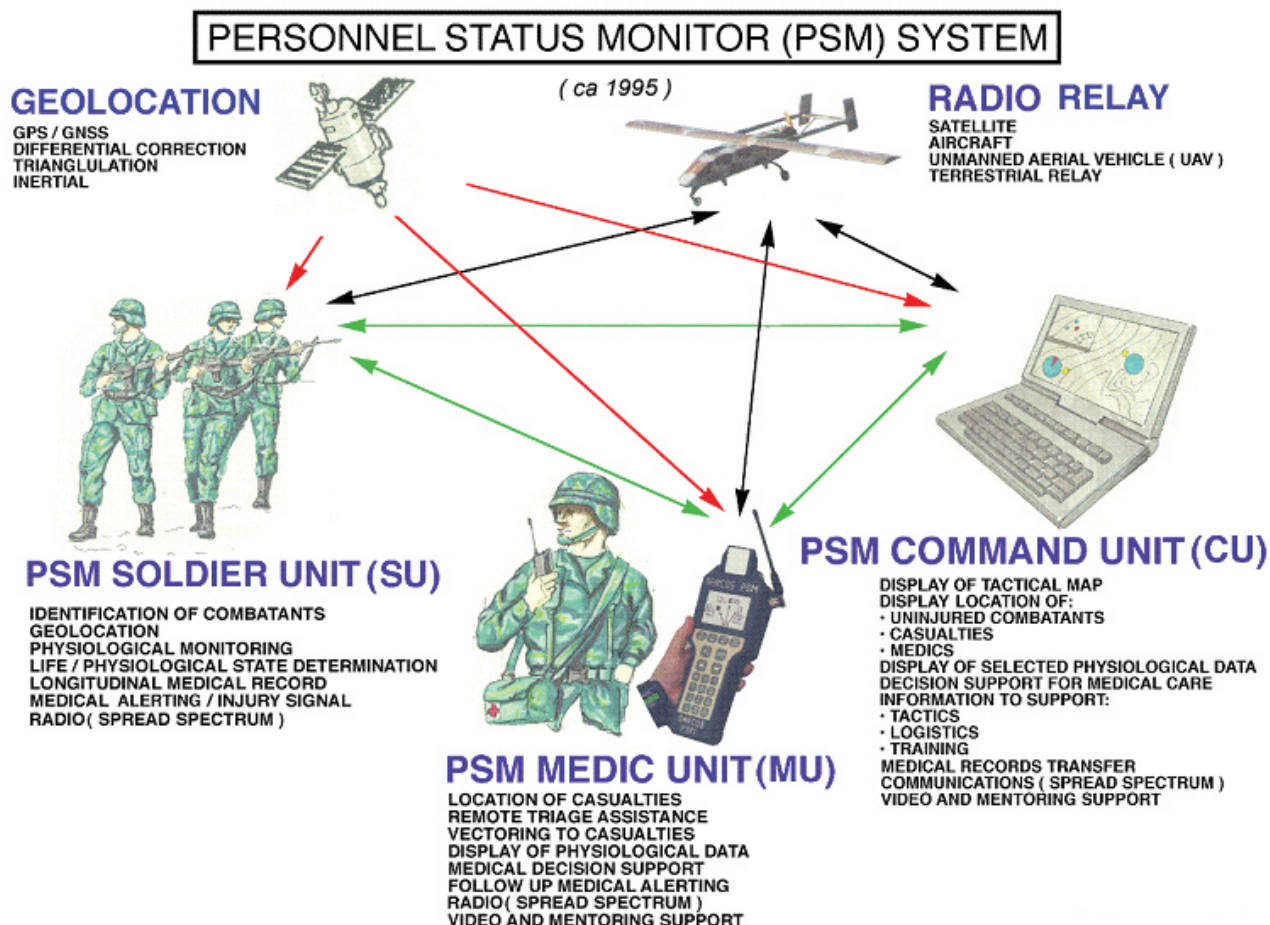


Fig. 26-2. The Personnel Status Monitor is an electronic monitoring system utilizing Global Positioning Satellite technology and telemetry for vital signs monitoring to assist field medics to prioritize, locate, and treat casualties on the battlefield. It has been successfully tested in field training exercises since 1997.

bolic arrest will likely be made by a combat medic. It is possible that personal status monitors (Figure 26-2) and telementoring could assist in this process.<sup>68,69</sup> It is also possible that computer-generated algorithms could be developed to provide some objective criteria for decision making. However, the person who is actually on the scene, and who is actually inducing death, will be a relatively junior and inexperienced member of the healthcare team. Actually administering the drug could also be an issue. For cerebral protection (the brain is one of the most sensitive organs to ischemia), it may be helpful to infuse the agent into the brain before it perfuses the heart and causes cardiac arrest. This

would be performed by direct injection into the carotid arteries or possibly by injection into the aortic root through a catheter introduced by way of a peripheral artery. These would not be typical tasks for the combat medic.

These issues are all considerable, but if the technology can be perfected and implemented safely, it could be another example of the military providing additional compensatory benefits for its personnel. Even if this example of metabolic arrest for resuscitation from severe trauma is not ultimately found to be practical, the ethical problems it raises represent the kind of problems other future technologies also could pose.

## CONCLUSION

This chapter has analyzed several issues that will or may generate ethical dilemmas in the future. Some of these concepts are being applied presently,

while others may never be applicable. For the purpose of this chapter, the issues discussed here are not as important as the processes of ethical analy-



sis used to examine them. The processes presented here are intended to represent the kind of ethical evaluation new technological advances such as these will require.

We have discussed the concept of compensatory justice as it applies to offering technological advances to soldiers. It is appropriate for soldiers, and others who risk their lives in defense of our society, to receive special benefits from a grateful society. Because policy decisions in the military affect many soldiers' lives, the process used in making these decisions in the military has far-reaching ethical implications. Soldiers' interests must be protected to the maximum extent possible. Decisions made using input from ethical analysis help ensure this. Military medical leaders have sought this input for many of the issues discussed in this chapter, and this is likely to continue for issues that arise in the future.

Ethical input, however, should extend beyond

merely protecting soldiers' interests. For example, members of the military live in a "total institution." Thus they may be more vulnerable to coercion than civilians. Consequently, their freedom to choose must be protected to the maximum extent possible. Therefore, it is appropriate to apply a more rigorous ethical analysis when researching and using technological advances for soldiers. Providing them a more rigorous ethical analysis can also be another means of providing compensatory justice. This analysis can provide justification for going beyond merely protecting soldiers' rights to establishing new ethical concepts not previously posed nor applied. The application of this concept of compensatory justice goes beyond using new technology to give soldiers a better chance of surviving on the battlefield, as they deserve. It actually allows them to enjoy optimal protection in research protocols and application of new technologies. Society owes its soldiers no less.

## REFERENCES

1. Coupland RM. The effects of weapons: Defining superfluous injury and unnecessary suffering. *Med Global Survival*. 1996;3:A1-A6.
2. Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977. Part III. Methods and Means of Warfare and Prisoner of War Status. Section I: Methods and Means of Warfare. Articles 35, and 36. and Part IV. Civilian Population. Section I: General Protection Against Effects of Hostilities. Article 51. Available at: <http://www.icrc.org/ihl.nsf>. Accessed 12 July 2002.
3. US Department of Defense. *Policy for Non-Lethal Weapons*. Washington, DC: DoD; 9 July 1996. DoD Directive 3000.3.
4. Perkins S. Not-so-deadly force: The search for a kinder, gentler knockout punch (development of nonlethal weapons for military and civilian use). *Sci News*, 7 March 1998.
5. Office of the Assistant Secretary of Defense (Public Affairs), Background Briefing Subject: Non-Lethal Weapons, Attributable To: Senior Military Official, Friday, 17 February 1995.
6. Non-lethal weapons: War without death? [transcript of televised program]. *Americas Defense Monitor*. 27 August 1995.
7. Lean, not-so-mean Marines set for Somalia. *Washington Post*. 25 February 1995:A22.
8. Policy group urges research in 'less-lethal' weaponry. *Army Times*. 17 July 1995.
9. Less-than-lethal weapons. *Technol Rev*. Spring 1995:23.
10. Coupland RM. "Non-lethal" weapons: Precipitating a new arms race. *Br Med J*. 1997;315:72.
11. Murphy MR. Biological effects of non-lethal weapons: Issues and solutions. Paper presented at the Non-Lethal Defense III Conference; 25 February 1998; Laurel, Md.
12. Geneva Convention for the Amelioration of the Condition of Wounded, Sick in Armed Forces in the Field. 12 August 1949. In: US Department of the Army. *Treaties Governing Land Warfare*. Washington, DC: DA; 7 December 1956. Army Pamphlet 27-1.

13. Office of the General Counsel. *Potential Legal Issues Pertaining to Request from the ASD (SO/LIC) for Medical System Support for DoD Research and Development Initiative on Non-Lethal Weapons*. Washington, DC: DoD OGC; 14 August 1995. Memorandum.
14. Murray JC. Quoted in: Krickus RJ. On the morality of chemical/biological war. *Conflict Resolution*. 1965;9(2):201–210.
15. Dr. Knut Krieger as quoted in: Reid RW. *Tongues of Conscience: Weapons Research and the Scientists' Dilemma*. New York: Walker & Co; 1969.
16. Albert Nobel as quoted in: Reid RW. *Tongues of Conscience: Weapons Research and the Scientists' Dilemma*. New York: Walker & Co; 1969.
17. Edelstein L. In: Temkin O, Temkin CL, eds, Temkin CL, trans. *Ancient Medicine: Selected Papers of Ludwig Edelstein*. Baltimore, Md: Johns Hopkins Press; 1967.
18. ACLU warns of need to restrict police reliance on pepper spray. *Washington Post*. 19 June 1995:A6.
19. Feaver PD, Gelpi C. How many deaths are acceptable? A surprising answer. *Washington Post*. 7 November 1999:B3.
20. Hawley A. A form of human intercourse? *Mil Med*. 1997; 162:597–600.
21. Joseph SC. Telemedicine in the military health services system. *Defense Issues*. 11(62). Available at: <http://www.defenselink.mil/speeches/1996/s19960711-joseph.html>. Accessed 4 July 2002.
22. White TE, Shinseki EK. *A Statement on the Posture of the United States Army 2002*. Presented to The Committees and Subcommittees of the United States Senate and the House of Representatives, Second Session, 107th Congress. February 2002.
23. Gomez E, Poropatich R, Karinch MA, Zajtchuk J. Tertiary telemedicine support during global military humanitarian missions. *Telemed J*. 1996 Fall; 2(3):201–210.
24. Roine R, Ohinmaa A, Hailey D. Assessing telemedicine: A systematic review of the literature. *CMAJ*. 2001;165(6):765–771.
25. Abbott KC, Mann S, DeWitt D, Sales LY, Kennedy S, Poropatich RK. Physician-to-physician consultation via electronic mail: The Walter Reed Army Medical Center ask a doc system. *Mil Med*. 2002 Mar;167(3):200–204.
26. Miller TW, Kraus RF, Kaak O, Sprang R, Burton D. Telemedicine: A child psychiatry case report. *Telemed J E Health*. 2002;8(1):139–141.
27. Psychiatry section. WRAMC telemedicine website. Available at: <http://telemedicine.wramc.amedd.army.mil/ProjectDocs/R&D/Psychiatry/Index.htm>. Accessed 9 July 2002.
28. Captain Frances Stewart, USN. Personal Communication, 8 July 2002.
29. Bowersox JC, Cordts PR, LaPorta AJ. Use of an intuitive telemanipulator system for remote trauma surgery: An experimental study. *J Am Coll Surg*. 1998;186(6):615–621.
30. Marescaux J. Transatlantic robot-assisted telesurgery. *Nature*. 2001;413:379–380.
31. Satava RM, Jones SB. Military applications of telemedicine and advanced medical technologies. *AMEDD J*. PB 8-97-11 / 12 November/December 1997:16–21.
32. Lamiell JM. Paper read at the Texas National Doctor's Day Program; 29 March 1996; Fort Hood, Tx.
33. Jones FD. Sanctioned use of drugs in combat. In: Pichot P, Berner P, Wolf R, Thau K, eds. *Psychiatry: The State of the Art*. Vol 6. New York: Plenum; 1985: 489–494.

34. Hall DP, Jansen JA. Stress and arousal in deployment of a combat support hospital. *Mil Med.* 1995;160(11):581–583.
35. Goh VH, Tong TY, Lim CL, Low EC, Lee LK. Effects of one night of sleep deprivation on hormone profiles and performance efficiency. *Mil Med.* 2001;166(5):427–431.
36. Grabenstein JD, Filby CL, Vauter RA, Harris TR, Wilson JP. Prescribed medication use among troops deploying to Somalia: Pharmacoepidemiologic analysis. *Mil Med.* 1995;160(11):571–577.
37. Casagrande M, Ferrara M, Curcio G, Porcu S. Assessing nighttime vigilance through a three-letter cancellation task (3-LCT): Effects of daytime sleep with temazepam or placebo. *Physiol Behav.* 1999;68(1-2):251–256.
38. Rada RT. Psychosurgery and the psychiatric implications of the Kaimowitz case. *Bull Am Acad Psychiatry Law.* 1974;2(2):96–100.
39. Rosenberg E, Caine Y. Survey of Israeli Air Force line commander support for fatigue prevention initiatives. *Aviat Space Environ Med.* 2001;72(4):352–356.
40. Emonson DL, Vanderbeek RD. The use of amphetamines in US Air Force tactical operations during Desert Shield and Storm. *Aviat Space Environ Med.* 1995;66(3):260–263.
41. Caldwell JA, Caldwell JL, Crowley JS, Jones HD. Sustaining helicopter pilot performance with Dexedrine during periods of sleep deprivation. *Aviat Space Environ Med.* 1995;66(10):930–937.
42. Lyons TJ, French J. Modafinil: The unique properties of a new stimulant. *Aviat Space Environ Med.* 1991;62(5):432–435.
43. Batejat DM, Lagarde DP. Naps and modafinil as countermeasures for the effects of sleep deprivation on cognitive performance. *Aviat Space Environ Med.* 1999;70(5):493–498.
44. Sicard B, Jouve E, Blin O. Risk propensity assessment in military special operations. *Mil Med.* 2001;166(10):871–874.
45. Jones FD, Johnson AW. Medical and psychiatric treatment policy and practice in Vietnam. *J Soc Issues.* 1975;31(4):49–65.
46. Ritchie EC. Psychiatric medications for deployment. *Mil Med.* 1994;159(10):647–649.
47. Patel JB, Ciofalo VB, Iorio LC. Benzodiazepine blockage of passive-avoidance task in mice: A state-dependent phenomenon. *Psychopharmacology.* 1979;61(1):25–28.
48. Gabriel RA. *No More Heroes: Madness and Psychiatry in War.* New York: Hill and Wang; 1987.
49. Nardi C, Lichtenberg P, Kaplan Z. Adjustment disorder of conscripts as a military phobia. *Mil Med.* 1994;159(9):612–616.
50. Schmidt NB, Staab JP, Trakowski JH, Sammons M. Efficacy of a brief psychosocial treatment for panic disorder in an active duty sample: Implications for military readiness. *Mil Med.* 1997;162(2):123–129.
51. Dobie TG, May JG. Cognitive-behavioral management of motion sickness. *Aviat Space Environ Med.* 1994;65(10,Pt 2):C1–C2.
52. Safar P. Suspended Animation: Novel Approaches to Cerebral Resuscitation. Safar Center for Resuscitation Research. Available at: <http://www.safar.pitt.edu>. Accessed 1 June 2002.
53. *The NIV Study Bible: New International Version.* Grand Rapids: Zondervan Bible Publishers; 1985.

54. Bellamy RF. The causes of death in conventional land warfare: Implications for combat casualty care research. *Mil Med.* 1984;149:55–62.
55. Bellamy R, Safar P, Tisherman SA, et al. Suspended animation for delayed resuscitation. *Crit Care Med.* 1996;24(2):S24–S47.
56. Bellamy RF. The medical effects of conventional weapons. *World J Surg.* 1992;16(5):888–892.
57. Department of Military and Emergency Medicine. *Evaluation of Wound Data and Munitions Effectiveness Study in Vietnam. Final Report.* Vols I, III. Bethesda, Md: Uniformed Services University of the Health Sciences; 1970.
58. Jennings RB, Reimer KA, Steenbergen C. Complete global myocardial ischemia in dogs. *Crit Care Med.* 1988;16(10):988–996.
59. Alam H, Kim D, Hamilton I, Provido H, Kirkpatrick J. Does resuscitation produce a reperfusion injury? *Am Surg.* 1998;64(2):132–136.
60. Shoemaker WC, Peitzman AB, Bellamy R, et al. Resuscitation from severe hemorrhage. *Crit Care Med.* 1996;24(2):S12–S23.
61. Behringer W, Prueckner S, Safar P, et al. Rapid induction of mild cerebral hypothermia by cold aortic flush achieves normal recovery in a dog outcome model with 20-minute exsanguination cardiac arrest. *Acad Emerg Med.* 2000;7(12):1341–1348.
62. Holzer M. Mild therapeutic hypothermia to improve the neurologic outcome after cardiac arrest. *N Engl J Med.* 2002;346(8):549–556.
63. Bernard SA, Gray TW, Buist MD, et al. Treatment of comatose survivors of out-of-hospital cardiac arrest with induced hypothermia. *N Engl J Med.* 2002;346(8):557–563.
64. Safar PJ, Kochanek PM. Therapeutic hypothermia after cardiac arrest. *N Engl J Med.* 2002;346(8):612–613.
65. Behringer W, Safar P, Nozari A, et al. Intact survival of 120 min cardiac arrest at 10°C in dogs: Cerebral preservation by cold aortic flush. *Crit Care Med.* 2001;29(12):SupplA71.
66. Code of Federal Regulations. Title 21. Food and Drugs. Subpart B. Informed consent of Human Subjects. Section 50.24 Exception from informed consent requirements for emergency research. Approved 2 October 1996. Revised 1 April 2000.
67. *Trials of War Criminals before the Nuremberg Military Tribunals under Control Council Law No. 10.* Vol. 2. Washington, DC: US Government Printing Office; 1949: 181–182. Available at: <http://ohsr.od.nih/nuremberg.php3>. Accessed 30 November 2001.
68. Dimmitt BS. Medical front lines. *Retired Officer.* November 2001:62–70.
69. Advanced Biomedical Technologies (Diagnostics). Available at: <http://www.darpa.mil/dso/trans/pdf/Abmt2.pdf>. Accessed 2 July 2002.



# Chapter 27

## A PROPOSED ETHIC FOR MILITARY MEDICINE

THOMAS E. BEAM, MD<sup>\*</sup>; AND EDMUND G. HOWE, MD, JD<sup>†</sup>

---

### INTRODUCTION

#### A PROPOSED MILITARY MEDICAL ETHIC

Physician First, Officer Second?

Limited Exercise of Power

Compensatory Justice

#### THE DECISION-MAKING PROCESS

Military Medical Ethics Decision-Making Algorithm

Applying the Military Medical Ethics Decision-Making Algorithm

Conflicts Between Ethics and the Law: An Algorithm

### CONCLUSION

<sup>\*</sup>Colonel (Retired), Medical Corps, United States Army; formerly, Director, Borden Institute, Walter Reed Army Medical Center, Washington, DC 20307-5001 and Medical Ethics Consultant to The Surgeon General, United States Army; formerly, Director, Operating Room, 28th Combat Support Hospital (deployed to Saudi Arabia and Iraq, Persian Gulf War)

<sup>†</sup>Formerly Major, Medical Corps, United States Army; currently, Director, Programs in Ethics, Professor of Psychiatry, and Associate Professor of Medicine, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, Maryland 20814; and Chair, Committee of Department of Defense Ethics Consultants to the Surgeons General



Asclepius the healer, from ancient Greek mythology

Military medicine is the combination of two ancient professions—medicine and the military. The military medical professional more often than not functions primarily as a physician, and only secondarily as a uniformed member of the armed forces. When the need arises, however, the two professions merge in the person of the military physician. This merging of professions is as old as the professions themselves. Indeed, in Greek mythology, the two sons of Asclepius—Machaon and Polidarius—were both healers and warriors. In the US armed forces, military physicians are not warriors in the sense of taking up arms to confront the enemy, unless their own lives, or those of their patients, are threatened.

Art: ©Araldo de Luca/CORBIS. Reproduced with permission.

## INTRODUCTION

The preceding chapters have explored ethical considerations arising in military medicine. It has been emphasized throughout these discussions that many of these considerations do not arise in civilian settings. Therefore, directly applying ethical principles from civilian medical ethics may not be appropriate in military medicine. The basic discrepancy between the two settings involves their goals and how these goals can be achieved. In the military, the objective is to defeat the enemy; this often involves killing enemy soldiers. When the mission of protecting society requires it, all members of the military must subordinate other value priorities to effect this end of overpowering an enemy by whatever legal and moral means necessary. For military physicians, this may involve sacrificing their patients' interests when required by the military mission of protecting society. Civilian doctors, in contrast, generally can focus on primary medical goals, such as trying to save patients' lives, or halt the spread of disease. This same discrepancy in goals underlies the core ethical quandary military physicians face, which, in one way or another, permeates this book.

That is, military physicians balance giving absolute priority to the principle of military necessity (adopting a military role-specific ethic) with giving moral weight to their traditional civilian medical priorities. When they do the latter, they give patients' interests some moral weight even though this conflicts with interests that might further military interests. However, as we will discuss later in this chapter, there is a distinction between military necessity, which is absolute, and military interests, which are not.

Difficulty arises in ascertaining what constitutes true military necessity involving medical decisions. Making this determination is among the most difficult ethical decisions military physicians and military medical leaders face. This chapter will propose a decision-making process that could be used by policy makers and military physicians. Understanding this process can help individual physicians accept those situations in which they must place the needs of the military over those of their patients. Individual physicians can also use the process in their own practices when policy or guidance from commanders is not clearly stated.

## A PROPOSED MILITARY MEDICAL ETHIC

The tensions between a military doctor's duties to his patients and to the command (and society) have been discussed extensively in the previous chapters of these volumes. In this final chapter, we will offer a proposed military medical ethic and use a decision-making algorithm to suggest how physicians and policy makers might best go about balancing these competing values.

### **Physician First, Officer Second?**

We propose as a basis for beginning discussion that a military physician is primarily a physician and in most instances makes decisions on this basis rather than as a military officer. Although this statement appears to emphasize the differences between medicine and the military, the instances of there being a significant conflict are very rare. In general, excellent medical care for soldiers—as patients—is in the best interests of the soldier, the physician, and the military. Therefore, in almost all situations, the military physician thinks and acts as a physician primarily and practices patient-centered medicine. Lieutenant General Ronald Blanck,<sup>1</sup> The Surgeon General of the US Army from 1996 to 2000, and others<sup>2-4</sup> have advanced this position. The is-

sue of a military physician being a military officer usually does not become a factor in his decisions. Society generally expects physicians, even physicians in uniform, to place the interests of patients, including soldiers, above all other considerations. However, society also expects military members to sacrifice personal safety and comfort to "protect and defend" its interests. Therefore, there are situations in which the conflicting obligations (mixed agency) become evident. In these situations, the military physician will need to balance his duties to his patient with his obligations as a military officer or give absolute priority to military needs.

In situations of military necessity, military physicians must give absolute priority to military needs. Therefore, priority will appropriately be given to protecting and defending society when society's interests would be significantly sacrificed as a result of not doing so. The United States Code<sup>5</sup> allows the Secretary of the Army to direct the medical care of any individual on active duty. He may determine that the needs of the Army are so significant that they must override those of the soldier-patient. Policy makers, both medical and tactical, and medical leaders advise him on the pertinent factors to assist him in making his decision.

The original assumption—that military physicians are doctors first and officers second—may seem to be contrary to this legal authority granted to the Secretary of the Army. However it is an accurate description of the reality seen in military medicine. The concept that the soldier “belongs” to the United States government with medical care routinely being forced upon the soldier is simply not the case. Although statutory authority is in place to address relatively unusual situations in which enforced treatment is required to accomplish the military mission, the Secretary of the Army rarely mandates medical treatment. Therefore, the physician usually is able to maintain his medical identity and act as if he were a physician in a civilian setting by respecting the autonomy of his soldier-patient.

The decision to override soldiers’ interests (as patients) inevitably is, and should be, agonizing and should not be exercised without significant, combat-related reasons for doing so. The best approach to balancing these social and individual soldier-patient interests is to presume that autonomy of the soldier as a patient is the primary force in medical decision making but that exceptions can be justified by overarching societal requirements related to the military’s mission.

The concept of a physician acting as a doctor first and an officer second also implies that sometimes the physician voluntarily limits exercising his power because the soldier-patient is uniquely vulnerable to coercion. Exercising power may more readily become unethical coercion within military medicine than in the voluntary patient–physician relationship seen in the civilian community. Thus, this power should be more limited, as it has been in some other contexts. Miranda-like warnings were adopted in the military to protect soldiers from such inherent coercion, for example, before they were required in the civilian sector.

### **Limited Exercise of Power**

In all medical decisions there is a significant imbalance of power within the patient–physician relationship (see Chapter 1, *The Moral Foundations of the Patient–Physician Relationship: The Essence of Medical Ethics*). In civilian medicine, this is recognized as one of the reasons the principle of autonomy assumes a primary role in ethical decision making. The patient is in a vulnerable position and must be protected. This same vulnerability exists within the military patient–physician relationship but it is accentuated because of unique military pressures. The military is a hierarchical organiza-

tion and its operation is based on the presumption of obedience. This is required for its primary mission of protecting society. Orders must be obeyed promptly and questioned only in rare cases of almost certain illegality or immorality. Although there are procedures for refusing to obey an order,<sup>6</sup> circumstances that require a soldier to exercise this option are, and should be, extremely rare. However, this deference to the authority of superiors makes soldiers much more likely to be vulnerable when medical decisions regarding them are made. Further, all military physicians are officers, and primarily field grade officers (majors and above). This enhances the presumption that their advice will be followed. Because it is more difficult for military patients to choose, or change, their physician, they may feel more obligated to accept the physician’s advice.

The military physician also may be more likely than his civilian colleague to become used to exercising his authority. Although civilian physicians have obvious symbols of their status and power (their “uniform” consists of the white coat and stethoscope), the military physician wears his rank visibly and his power comes not only from his knowledge and training as a physician but also from his being commissioned as an officer in the military. In military contexts, his orders, ethically as well as legally, are to be obeyed. The subtle difference between military orders and medical ones can become blurred and this could lead to an abuse of the physician’s power. It is important to remember, however, that the military physician does not have legal authority to order a soldier-patient to undergo treatment. This authority is given to the soldier’s commander or, in rare circumstances, the hospital commander. The soldier-patient, however, is more likely to defer to the authority of any superior officer (including medical officers) and this perception increases his vulnerability.

Another concern arises because the military physician may overidentify with his military unit. (Chapter 13, *Medical Ethics on the Battlefield: The Crucible of Military Medical Ethics*, addresses this in greater detail.) This can occur because of the military training and conditioning he receives, particularly if he is a member of an elite unit.<sup>7</sup> This overidentification with the military unit may result in his modeling his medical orders on a military model. This also can significantly increase the likelihood of an abuse of power. The military physician must be extremely aware of this possibility and be vigilant to prevent this abuse from occurring.

For these reasons, more restraint should be applied in military medical decision making than in



the civilian sector. The line of restraint must be drawn clearly and, indeed, more closely for the military physician than his civilian colleague.

### Compensatory Justice

Another concept that we believe merits moral weight is that of compensatory justice. This concept was introduced in Chapter 26, *A Look Toward the Future*, but will be amplified here. Although the military has an obligation to fulfill its mission to protect society, society has a reciprocal obligation to those who have willingly placed themselves in harm's way. One of the ways this could be accomplished is by providing soldiers, in appropriate contexts, "compensatory justice." Soldiers sacrifice much in performing their duty to society. They, of course, may die in service to their country. They also give up many of the freedoms that American citizens enjoy. These freedoms, ironically, are in many cases those that, as soldiers, they may die to preserve (see Chapter 9, *The Soldier and Autonomy*). This loss of freedom is necessary to preserve the "good order and discipline" in the armed forces that enables the armed forces to accomplish their mission of protecting society. Therefore, society owes a great debt of gratitude to its protectors.

Because of this debt, society should support the

military's choosing to compensate its members in special ways. This is fair and appropriate. The government provides special pay for those in combat, income tax exemptions for portions of their pay, and other tangible expressions of gratitude for dangerous service. Individual members of society may choose to express their gratitude as well. During and after recent conflicts many businesses and individuals have made special benefits available to soldiers, including donating free rooms in hotels, offering special travel opportunities to resorts or tourist attractions, and deferring interest payments on purchases made by soldiers.

Military medicine has opportunities as well to compensate its beneficiaries in extra ways. Free access to medical care for soldiers and their families and free dental care for soldiers have been benefits associated with military service. Some programs, such as using DNA (deoxyribonucleic acid) analysis to identify remains of soldiers even after they have left active duty, may give special benefits as well. In evaluating new technologies and procedures (as seen in Chapter 26), policy decision makers also can choose to include promising treatments or programs that benefit soldiers and their families. This can be justified as special compensation for harms, both actual and potential, associated with military service. This is the concept of compensatory justice.

### THE DECISION-MAKING PROCESS

As stated before, decisions requiring prioritizing the conflicting goals of the military and of medicine can be the most difficult military leaders and military physicians face. The following algorithms are offered not as the definitive "solution" to these dilemmas but as a means for examining the process used to arrive at the decision. As will be seen, there are uncertainties and ambiguities inherent in all decisions. This is particularly true in those involving both clinical medicine and combat. The basic decision often becomes that of determining who "gets" to make the decision and once that determination is made, what criteria are the appropriate ones for deciding. There can be a conflict in moral views—the military priority of the mission as opposed to the medical priority of the individual patient.

#### Military Medical Ethics Decision-Making Algorithm

Another way to further protect soldiers might be to follow loose guidelines of a decision-making algorithm to help determine appropriate use of this

increased power and to help avoid its misuse. We propose a decision matrix for consideration (Figure 27-1). The algorithm as presented here is greatly streamlined; one should not assume that complicated decisions could necessarily be made in these few steps. However, this simplified version clari-

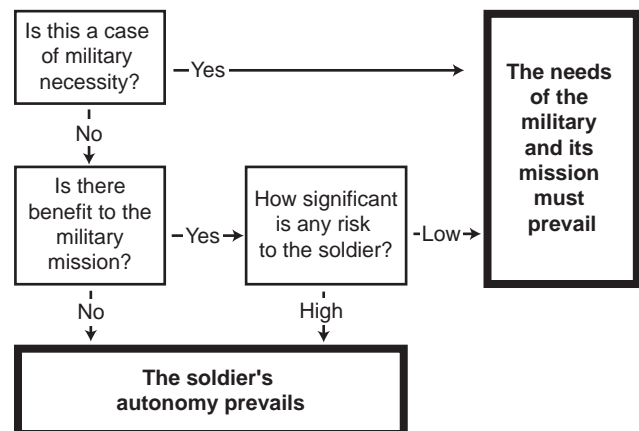


Fig. 27-1. Military medical ethics decision making.

fies a process that may be optimal. Thus it can be useful to policy makers and military physicians in making optimal moral decisions. We will describe the decision-making process using the algorithm and give examples of some possible applications.

### ***Decision Point #1: Assessing Military Necessity***

The first decision point is that of military necessity. This concept has been discussed in previous chapters and is briefly reiterated here in this chapter. Simply stated, there are situations in which military needs are likely to be absolute. This occurs whenever the completion of the mission could be significantly affected. As discussed previously, the survival of the society is the ultimate end of the military profession. Because this goal is absolute, the needs of individuals must be considered secondary and ethically can be overridden by military necessity. Situations requiring this are not common, but they are frequent enough to cause controversy and can generate much emotion. Even if military necessity exists only in the rarest of situations, determining when it exists requires someone to make this judgment. As previously discussed, the Secretary of the Army or his designee has the statutory authority to determine if and when this military necessity exists.

In situations of military necessity, soldier autonomy can (and should) be overridden. For example, a soldier can legally be ordered to risk his life to attack an enemy's fortified position if the overall mission requires this. Analogously, soldiers give up a certain amount of their autonomy in medical decisions as well. Similarly, physicians in the military also have their autonomy limited in certain circumstances. Physicians can be ordered to treat soldiers, even if soldiers refuse treatment, if military necessity is present. The military has this right and, due to its mission to protect society, has an affirmative obligation to do so.

Yet, if soldiers are to be placed in harm's way, a just society has an obligation to provide whatever protection it can to those soldiers. Society can expect all safe and effective protective measures to be used for its sons and daughters serving in the military. It is possible that the soldiers can't be fully informed about all the potential risks they face, but education may help soldiers anticipate when their autonomy may be overridden on the basis of military necessity. Education may also prevent some of the controversies that have occurred recently in situations in which it has been determined that overriding soldiers' autonomy is necessary.

To illustrate the strength of the justification underlying military physicians following this principle, they should adhere to it even when soldiers are subject to the draft. When military service is voluntary, persons can avoid these mandatory measures and the bodily intrusiveness they may bring about by not volunteering. If there is a draft, they have no choice. Conscription is itself justifiable on grounds that are wholly consistent with the foregoing ethical analysis. Its justification lies solely in its being necessary for the nation's survival.

### ***Decision Point #2: Providing Benefit to the Military***

If the situation is not one of military necessity, but rather one of merely providing benefit to the military, the second algorithm decision point arises. In discussing benefit to the military, it is important to distinguish that this benefit is not financial or some vague organizational benefit. Counting these gains as benefit would allow almost any decision to be interpreted as beneficial to the military. The definition of benefit intended here is instead one that truly benefits the mission the military is assigned—to protect and defend the country. Thus, the benefit is actually ultimately to society. It must be directly beneficial to the accomplishment of the mission. If this strict definition of benefit is not satisfied, the military should not override the soldier's right to make his own decision in medical interventions. This is analogous to the harm principle more fully discussed in Chapter 9, *The Soldier and Autonomy*. If there is true benefit to the military, using the strict definition of benefit, the next algorithm decision point, looking at the risk to the soldier, occurs.

### ***Decision Point #3: Assessing Risk to the Soldier***

In situations in which there is a true benefit to the military as defined above, the risk posed by the medical intervention to the soldier must be balanced against that benefit. This is a familiar decision matrix for all clinicians because this is the model for medical recommendations used in the daily practice of medicine. We maintain that if there is high risk to the soldier and if there is no true military necessity, but rather only benefit to the military mission, the soldier's autonomy in medical decisions should not be overridden. This may help prevent abuses of power in making these decisions. As previously discussed, because there is such a power inequality within the military, and because

soldiers must of necessity give up their autonomy in many nonmedical military situations, drawing the line on the side of protecting their remaining autonomy under these circumstances is ethically not only defensible but optimal. In so doing, abuses of military physicians' and commanders' power may be decreased.

Conversely, if the benefit to the military mission is significant and the risk to the soldier is minimal, there is a stronger argument to override the soldier's autonomy. The soldier has accepted a certain limitation of his autonomy. He has accepted the mission of protecting his country, even at the risk of losing his life. Therefore, it is only consistent that he should accept some level of personal risk when the benefit to the military is substantial. In this case, we believe it is appropriate to override the soldier's autonomy for the benefit of the military mission.

We recognize that the terms "limited," "significant," "high," and "low" are not absolute. There is always a considerable level of uncertainty in these policy decisions. This also raises the other obvious issue of who has the right to assign these terms both now and in the future. Legally, as stated before, the Secretary of the Army or his designee, advised by his medical and tactical commanders, has this right.

This raises the additional issue of assigning levels of risk and benefit to decisions whose impact will only become clear in the future. As discussed in Chapter 12, *Ethical Issues in Military Medicine*, it may be necessary for the commander, informed by experts on his staff, to make ethical and legal decisions based on his view of the situation, because only he has the ultimate overall vision and responsibility for making the decisions that will affect the entire situation. The medical officer must participate as one of these experts, and can certainly offer a soldier-patient-centered focus, but ultimately policy decisions need to be made by the policy makers, and in the military this function resides in the chain of command. Representatives of the Judge Advocate General will also be involved in these decisions. The previous discussion reviewed the ethical bases for decision making but the relevant laws and regulations must always be considered. In fact, they usually warrant the most moral weight in determining what physicians should do.

### **Applying the Military Medical Ethics Decision-Making Algorithm**

We will now provide some examples and show how they can be analyzed using the military medical ethics decision-making algorithm (Figure 27-1).

The initial examples, which will be examined in some detail, involve policy decisions. The individual physician can use them to understand how policy decisions are made. They can also help him understand the competing loyalties he may feel in these situations and, more particularly, that though they may cause emotional pain, this does not mean they are "wrong." Other examples from individual clinical situations will be mentioned to demonstrate the application of the algorithm in the patient-physician relationship.

### ***Policy Applications***

Three areas of policy applications will be explored in this discussion: (1) acting when military necessity prevails; (2) balancing military benefit with individual risk; and (3) acting when there is minimal military benefit.

**When Military Necessity Prevails.** A recent context in which military physicians have had an absolute obligation to place the military's interests first is when prophylactic agents may have been needed to protect soldiers from the effects of biological and chemical weaponry. This occurred during the Persian Gulf War (1990–1991). As is discussed in Chapter 12 (*Mixed Agency in Military Medicine: Ethical Roles in Conflict*), it was then feared that Saddam Hussein, the leader of Iraq and its military, might use this weaponry. This fear continued until the removal of Hussein from power in 2003.

The question arose whether the use of protective agents determined to have benefit should be mandatory or voluntary. Because this weaponry could have been deadly, it was decided that although these agents had not been fully tested on humans for this battlefield purpose, their use should be mandatory.<sup>8</sup> Again, as discussed in Chapter 12, the justification for this was military necessity. If soldiers were not protected from chemical and biological agents, many of them would have died had the agents been used.<sup>9</sup> The military leaders, both combat and medical, felt that the threat that these agents may be used was credible. If inordinate numbers of soldiers died or were incapacitated because of their exposure to these agents, the battle or even the entire war could have been lost. It was necessary, therefore, to require soldiers to use these agents.

On the algorithm, the first decision point indicates that if it is militarily necessary for the accomplishment of the mission, the proposed intervention may legitimately be required. Obviously, in making this decision, the leaders must examine the expected risks and benefits of all courses of action

before making a decision. Their intent is to protect the fighting force to enable it to accomplish the mission.

Subsequent events bring the ethical conflict raised by this question still more sharply into focus. Many service persons after returning from the Persian Gulf presented with symptoms that have been grouped together, designated as the Gulf War illnesses. The etiology of these symptoms remains unclear.<sup>10,11</sup> Nonetheless, some persons believe that the use of these protective agents and this syndrome may be related. The anger some feel highlights the reality that when military physicians override soldiers' autonomy, even on the grounds of military necessity, the long-term adverse consequences may be considerable.

More recently, since the terrorist attacks of September 11, 2001, deaths have occurred due to anthrax being sent through the federal mail system. This outcome highlights why the use of some of these protective agents may be a military necessity. One of the authors (EGH) participated in the discussion concerning the ethics of using prophylactic agents, including vaccines against biological weaponry, prior to the Persian Gulf War. The decision-making process was very similar to that just described for other agents used in the Persian Gulf War. Had Saddam Hussein used biological weaponry, many thousands of soldiers could have been killed and the war could have been lost. This risk could not be allowed. The decision in response to this threat now is to attempt to protect all service members from anthrax by vaccination.<sup>12</sup>

This policy has been adopted because the risk to soldiers from vaccination is minimal and the benefit to the soldier, the military, and society, is felt to be significant.<sup>13,14</sup>

This policy is, and should be, continually reevaluated as events and circumstances change. An organization outside the Department of Defense (DoD) may be able to examine the policy with more objectivity, or at least may be perceived as more objective. To further these ends, the Institute of Medicine, an organization clearly independent from the DoD, was invited to evaluate the safety and effectiveness of the anthrax vaccine. Although the study was funded by the military, that did not influence the committee. In fact, as Dr. Brian Strom, the chair of the committee, asserts: "If [the committee] had a bias to begin with, it probably was against the military. I felt we just had to turn over the right stone and we'd find a smoking gun out there. But we didn't find it, and we looked hard."<sup>15(p951)</sup> Their report, which was made public in 2002, clearly sup-

ports the conclusion that the vaccine is safe and effective. Further, it is likely to be effective against all strains of anthrax because it targets the toxin and not the cell. Independent reviews such as this can assist those establishing policy to be certain that the interventions will indeed improve the mission capability.

In civilian contexts, societies requiring persons to take such agents or to face criminal sanctions generally would be legally impermissible and ethically reprehensible. However, even in the civilian context, citizens' freedom can be curtailed to protect the greater population. This occurs, for example, when persons in a region need to be quarantined. The principle underlying military physicians' acting on the basis of necessity in military and civilian contexts is, in fact, the same.<sup>16</sup> Society has a right to require some degree of sacrifice from its citizens to protect the health and well-being of other members of the society. However, it is likely that a military physician will encounter this situation more frequently in his career than would a civilian physician.<sup>17</sup> Military physicians' obligation to respond on the basis of this necessity is absolute in principle. However, they still must exercise moral discretion when responding. When deciding whether a prophylactic agent should be used, military physicians and leaders must assess the relative benefits and burdens.<sup>18</sup> The point at which this ratio is sufficiently high that an agent's use should be made mandatory is, of course, an ethical decision.

All medical decisions involve ethical judgments because the benefits must be judged as worth the risk and there cannot help but be differing moral views on when this point has been reached. This is readily apparent in regard to new biological threats such as the present threat of smallpox.<sup>19,20</sup> Here, the benefits versus burdens are well established clinically.<sup>21</sup> Yet, when, and for whom, this vaccination should be reinstituted requires some persons' judgment. The question whether prophylactic agents should be used (and who should decide) becomes still more complicated when the military occupies a foreign territory. Should citizens in an occupied country be offered protection? Should prisoners of war be offered protection?<sup>22,23</sup> We believe it would be optimal for the protection to be offered, but we realize there may be inadequate supplies. Once again, the ethical judgment involves prioritizing the needs of potential patients with other needs of society.

Likewise, new biological or chemical weapons may be developed by hostile nations. If they are developed, efforts must and will be undertaken to find prophylactic agents quickly.<sup>24,25</sup> Whether such



agents, just developed, should be used to protect soldiers, despite their being new, is an ethical judgment involving their relative benefits versus burdens. An ethical question that also always will be present when supplies are limited is whose needs should be prioritized. This is currently being debated in regard to available supplies of anthrax vaccine. To be consistent with the principle of military necessity, the vaccine first should be given to all those most needed to win the war. Only thereafter should the recipient pool be expanded. Who should be included in this first group and how far its margins should reach requires, of course, an ethical judgment.

It is critically important for military physicians to be aware of this inconsistency (between having to adopt a military role-specific ethic due to military necessity on one hand, but still having to exercise moral judgment in implementing this ethic on the other) when they apply the algorithm introduced above. When adopting a military role-specific ethic, they must know that though in principle their obligation is absolute, in implementing this principle they will never be able to avoid applying ethical discretion. Therefore, when military physicians seek to use the algorithm we have proposed, they should feel wholly justified in acting inflexibly and according to their role-specific military ethic if and when this is required by military necessity. However, they should feel justified to do this if, and only if, this is militarily required. They should remain aware, however, that notwithstanding their total justification in making this choice, there are many ethical judgments they cannot avoid in its implementation.

#### **Military Benefit Balanced With Individual Risk.**

An example demonstrating attempts to balance the benefits to the military against the risks to the individual is that of epidemiologic studies of human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) when the disease was first identified. Because homosexual contact was a factor in the spread of the infection, it was important to assess its prevalence. Yet, homosexuality was, and remains, a ground for discharge from the military.<sup>26</sup> If HIV positive soldiers admitted that they were homosexual during questioning about their risk factors, under normal circumstances they would have risked being involuntarily separated from the military. The military, on the other hand, obtained benefit from ascertaining the true etiology of HIV infection. In this instance, the benefit to the military, as well as the risk to the soldier from being identified as homosexual, is clear. Several policy

decisions were made over time to attempt to resolve this issue.

In 1985, Casper Weinberger, then the Secretary of Defense, made the decision to allow confidentiality for soldiers who acknowledged their homosexuality during epidemiological studies, but not if their homosexuality was discovered under other circumstances.<sup>27</sup> Congress expanded this protection through legislation in 1986 by precluding not only involuntary separation, but also other adverse actions that could negatively influence the soldier's career.<sup>28</sup> This decision regarded the benefit the military obtained from accurate data concerning the etiology of HIV infection as being so significant that special legal provisions were enacted to attempt to minimize the real risk of harm to soldiers. It placed less weight on benefits accrued to the military from identifying and separating homosexual soldiers as long as they were not identifiable by other means (ie, as long as they were discreet).

On the other hand, the protection did not extend to security clearances. If soldiers were found to be homosexual, even through epidemiological assessment, their security clearances could be denied or revoked.<sup>29,30</sup> The apparent rationale for this decision seems to be the assessment that homosexual soldiers did represent a higher likelihood of being compromised because of their sexual preferences than did heterosexual soldiers. The military perceived the benefit from preventing a breach of security as outweighing the risk of harm to the soldier.

Although this assessment of the factors involved in this particular decision may not be the only interpretation possible, it serves as a good example of policy makers balancing risks and benefits in making their decisions. Furthermore, it demonstrates the model of civilian oversight of the military that exists in the United States.

**Minimal Military Benefit.** A final policy issue that will be analyzed using the decision-making algorithm is that of the DNA repository. Using DNA technology, the military has been able to identify remains of soldiers from previous battles, including the remains of Air Force First Lieutenant Michael Blassie as the Unknown Soldier of the Vietnam War.<sup>31</sup> The technique involves the use of DNA taken from the remains of an unidentified soldier and comparing it with DNA taken from living family members of missing soldiers. It is far superior to using other forms of identification, including fingerprints, scars and blemishes, or dental records. The DNA used in this technique is found in the mitochondria of all cells and is passed within the ovum of the mother to her children.<sup>32</sup> If there are

consistent similarities on the mitochondrial DNA patterns, the military may be able to identify the previously unidentified remains of a soldier. Obviously this requires some element of chance and luck, in that there are many soldiers missing in action and, although circumstances can narrow the potential matches somewhat, there is still a large pool of potential matches. It is also possible that the mother and siblings of the soldier may not be available to donate cells for DNA testing.

This uncertainty and, to some degree, the amount of DNA to be examined for similarity can be overcome by having actual DNA from the soldier. In 1992, the Department of Defense established a repository of DNA samples to be used for this purpose with samples of blood and other cells.<sup>33</sup> All members of the military, active duty and reserve, were required to supply these samples.

The possible benefit for families is a compelling argument in favor of offering this to soldiers. They can be spared the horror of wondering if their loved one is suffering in a prisoner of war camp somewhere. Families can then proceed through the grieving process as well as finalizing legal and financial documents.

The ability to identify remains is not, however, militarily necessary for the mission to succeed. However, it may be beneficial to the military to be able to identify its dead and to change the status of the soldier from missing to deceased. Other soldiers may benefit as well from knowing that remains can be promptly and accurately identified. It would also be beneficial to the soldier to know that his family would be spared the uncertainty of not knowing if he were dead or a prisoner of war. The military services have established the goal of never having an unidentified soldier in future conflicts.

The next question in the algorithm involves risk to the individual. There is a risk that the DNA could be used in ways that would harm the person, such as potential invasion of privacy. DNA carries unique information and this information can be used not only for remains identification, but also for prediction of genetic diseases. For example, genetic profiling for career advancement or medical insurance are possible harms that could come from the misuse of this information. However, the DNA repository does not analyze the DNA for genetic diseases because the samples would be used only for comparison with DNA taken from the unidentified remains of a US service member.<sup>34</sup>

In 1996, the Department of Defense issued a policy clarifying four possible uses of the DNA as (1) identification of human remains, (2) internal

quality assurance activities, (3) other activities for which the donor or surviving next of kin specifically consents, and (4) court-ordered examination for prosecution of serious crimes and only after review by the Department of Defense General Counsel.<sup>35–37</sup> Although safeguards have been established to help prevent potential harms, there are still concerns about them as evidenced by several service members refusing to have their DNA taken and stored. Some of these were even tried by court martial and found guilty of refusing a lawful order.<sup>38</sup>

Depending on the determination of the risk to the soldier, it would be possible to decide to require soldiers to submit the DNA samples, or to decide to make participation in the DNA remains identification program voluntary depending on the weighting of conflicting values. Of course, if there is no true benefit to the military mission, the soldier's autonomy should not be overridden.

In summary, these three areas of policy application—(1) when military necessity prevails, (2) military benefit balanced with individual risk, and (3) minimal military benefit—represent the continuum along which these different decisions can be made.

### *Clinical Examples*

The algorithm can also be applied in the clinical setting. Chapter 12 demonstrates this with the discussions of situations that require adopting a military role-specific ethic, situations in which discretion should be applied, and situations in which a medical role-specific ethic possibly should be adopted. An example of using the algorithm in a clinical situation requiring a military role-specific ethic because military necessity is absolute is that of treating combat stress disorder. In Chapter 12, Howe states that a floodgate phenomenon could occur if combat stress disorder is treated by evacuation from the theater. This could significantly affect the military's being able to accomplish its mission. To avoid this likelihood, soldiers with combat stress disorder must be returned to duty, even if this violates their wishes.

The example of the alcoholic general (in Case Study 12-1), in which the wife revealed to her physician that her husband (a commanding general) was an alcoholic, is an example demonstrating a high risk to the patient (the wife in this example—her marriage and her relationship with the physician) and the expected low level of benefit to the military (by having the general's addiction identified). The risk in this case was judged to be greater than the benefit to the military. If the general were

impaired significantly, or if his level of responsibility were great enough, the opposite decision could possibly have been made based on a higher level of benefit to the military and this level approaching military necessity.

A possible example of there being essentially no benefit to the military is that of the affair (discussed in Case Study 12-4) in which the physician wanted to report his patient after the patient admitted to an adulterous relationship. The physician's colleagues were convinced that there was a negligible benefit to the military in exposing the affair and that, if there were no benefit, it should not be reported.

These clinical examples demonstrate the varying application of the algorithm, based on the physician assigning values to the competing goals. This is a familiar model to all clinicians, in that assessing risk/benefit ratios is a basis for all clinical decision making. Applying a similar model to ethical decision making is a reasonable extension of a basic clinical skill.

### Conflicts Between Ethics and the Law: An Algorithm

Another difficult dilemma arises when law and ethics appear to be in conflict. A discussion of the legal basis of military medicine was presented in detail in Chapter 12, *Mixed Agency in Military Medicine: Ethical Roles in Conflict*. The military physician must also have some knowledge of military law and of the law of warfare (as discussed in Chapter 8, *Just War Doctrine and the International Law of War*), as well as of those laws applying specifically to medicine (as discussed in Chapter 23, *Military Medicine in War: The Geneva Conventions Today*). If a military physician has doubts about the legal requirements of military medicine, he should consult with others who have more experience with these issues, whether they are members of the Judge Advocate General Corps or more senior military physicians who have dealt with such matters in the past. It is essential that individual physicians understand the legally imposed limits on their autonomy required by the military mission when exercising discretion to avoid suboptimal outcomes for their soldier-patients, themselves, and the military overall. In some instances, for example, the law should warrant great weight; in others, legal requirements may be absent and thus warrant little, if any, weight.

At the same time, the physician needs to be aware that decisions made using ethical analysis may not be the same as those made using legal analysis.

When the two differ, the most difficult questions regarding discretion may arise. This conflict will be explored using another algorithm (Figure 27-2). The process involved is similar to that available to all soldiers if they are concerned about the legality of an order; therefore commanders are familiar with this concept. As already stated, these issues are extremely complex. Thus, although the algorithm given may help frame the discussion and provide some basis for identifying underlying assumptions and initially proceeding, no simplified decision matrix can "solve" ethical dilemmas.

Generally a legal analysis generates the same conclusion as ethical analysis. Malpractice lawyers

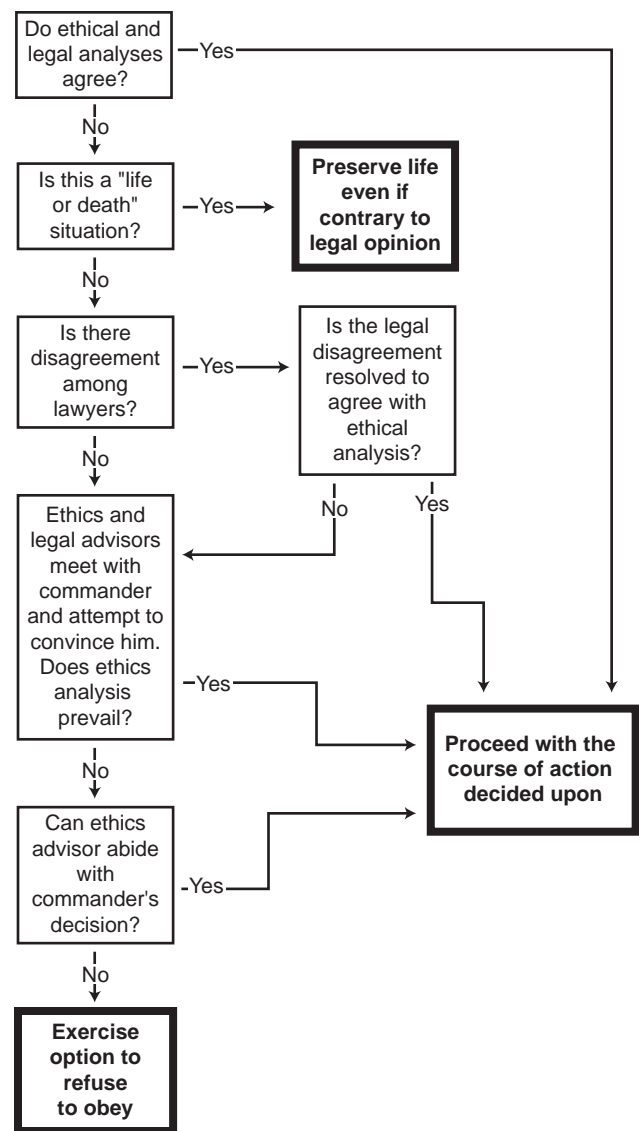


Fig. 27-2. Conflicts between ethics and the law.

thus say rightly that the best protection from lawsuits is to practice good medicine. Practicing good clinical medicine is practicing not only legally good medicine, but ethically good medicine as well. However, the law provides only a “good” minimum level of practice (what one must do or must not do to prevent lawsuits), whereas ethics provides a higher level of practice (what one ought to do). Practicing good ethical medicine would thus not only satisfy the legal requirements but also meet a higher standard of patient care.

There is significant moral weight due the law. Legal traditions have been developed through a rigorous series of examinations, cross-examinations, challenges, and astute judgments. Moreover, the law warrants respect even when it conflicts with ethics because it represents the best practice for deciding policy when persons dissent. Society therefore rightly expects the military, and military physicians, to operate within the constraints of the law. However, there are occasions in which the decision suggested by the legal advisors may differ from that determined by ethical analysis. This occurs in civilian medicine as well and can cause discomfort in ethics committees and ethics consultants. In ethics consultations, it is important for legal interpretations to be subject to challenge and discussion. The lawyer’s interpretation should not automatically shut down all further discussion.

Furthermore, lawyers can (and often do) disagree on specific interpretations of the law, so an individual lawyer’s interpretation of the law may not reflect the only way the law can be applied. It also may not be the only law applicable or the most appropriate law for the situation. And in many cases the law does not yet exist. Statutes dealing with an ethically conflicted situation sometimes have not yet been enacted and precedent cases may have not yet been adjudicated. When one of the courses of action would lead to the death of the patient, it is appropriate to continue with actions that preserve the patient’s life until all issues are resolved. This last point is best illustrated by a case.

**Case Study 27-1 The Inappropriate Surrogate.** An elderly man with chronic obstructive pulmonary disease was admitted to a hospital in another state for increasing respiratory distress. While in that hospital, and while he had decision-making capacity, he crafted a durable power of attorney document, naming his fiancé as the person he appointed to make decisions for him, should he be unable to do so. His clinical condition continued to worsen and he was transferred to a military tertiary medical center. While at the military medical center, he verbally informed the attending physician that he wanted his fiancé

to participate in medical decision making. He continued to deteriorate and was transferred to the Intensive Care Unit and was placed on the ventilator after indicating to the physician and his fiancé that he wanted a trial of maximum medical therapy. He became incapable of participating in decision making. His wife (their divorce was completed except for the judge’s ruling, which was expected within a week) arrived and ordered the ventilator discontinued. The fiancé stated that he was still early enough in the trial period that he would not want the ventilator removed. The hospital attorney advised that the durable power of attorney was only a general one and did not grant medical decision making to the fiancé, and that the spouse was the legally recognized surrogate even though they were estranged and almost divorced. Until the divorce became final, the spouse had decision-making authority.

**Comment:** This case demonstrates a conflict between the hospital attorney’s view and the unanimous opinion of the ethics consultants, as well as the healthcare team. If the expressed wishes of the spouse were to be followed (which was advised by the attorney) this would likely lead to the patient’s death. In this case the decision was made to appeal the attorney’s decision and to continue medical treatment until the ethical and legal issues could be resolved.

For the military physician, this conflict can be extremely difficult, but it should not be impossible to resolve. The lawyer is the legal advisor to the commander and the ethics consultant advises on ethics. In situations of disagreement, the commander needs good advice from each; he ultimately will make the decision. In the military today, the surgeon general of each service has an ethics consultant to help him as he makes decisions that have ethical implications. Local commanders (and individual military physicians) can ask this consultant or a local ethics committee for assistance when making these decisions. Once the commander makes his decision, the physician is still, however, a moral agent and must choose how to act in light of these recommendations. If the physician is morally opposed to the commander’s decision, he should inform his commander about his moral dilemma and discuss alternatives. If the situation cannot be resolved, he could request to be relieved from the situation, he could resign from the military, or he could disobey and suffer the consequences of this decision. The physician can also request a review and ruling from a higher level in the chain of command. These actions must be carefully considered but it will not usually be necessary to proceed to this point. Still, military physicians must be willing to act independently of the law if and when this seems ethically necessary. In emergency situations it may be optimal, for example, to err on the side of



preserving a patient's life by not making a decision that is likely to shorten a patient's life when delaying is necessary to allow a more considered decision. This was exemplified in the case just given.

Another, more obvious, example occurred in Germany during World War II. Laws that were enacted were clearly immoral, and could have been disobeyed. Disobeying them would have consequences, possibly severe ones, but physicians could have accepted this in order to obey their consciences. As we have seen in

earlier chapters, acting in conscience has risks, but this is required for persons of moral character. It will also raise moral standards in an organization.<sup>39</sup> Conversely, physicians who went along with Nazi policies were tried and convicted of crimes against humanity. Attempts to defend their actions by claiming that they were just following orders were unsuccessful. Particularly in a democratic society such as the United States, acting in conscience by challenging immoral laws is more likely to change the laws.

## CONCLUSION

This final chapter reemphasizes the tension underlying mixed agency, or conflicting loyalty, issues. Some aspects of these are unique in the military. There are extraordinary potential differences between the realities military and civilian physicians face. Nonetheless, the ethical priorities both would adhere to under the same extreme circumstances are the same. The examples of military necessity and civilian quarantine for infectious disease are illustrative. Both give highest priority to saving the greatest number of lives. In these situations the conflict is between two goals (protecting an individual patient's interests and saving many lives), each of which is generally considered morally weighty. However, the military physician is likely to face these issues more frequently than his civilian colleague.

Civilian physicians have faced mixed agency issues as well. Physicians in sports medicine, penal institutions, and other situations in which they are employed by an organization experience conflicting loyalties similar to their military colleagues. The goals here conflicting with the patient's best interests, however, are not as clearly warranting of moral weight in all of these cases. Mixed agency issues are, however, becoming increasingly obvious in medical practice today as managed care models become prevalent. In some systems, there are pressures to avoid tests or procedures because they are expensive, even when they may be beneficial to the patient.

Several chapters in these volumes have attempted to provide some assistance to military physicians when they are faced with seemingly irreconcilable conflicts. The example in Chapter 12 of

the submarine crew member who had to close the hatch on his fellow sailor in order to save the rest of the crew is illustrative. The sailor continued to have sorrow many years later over his comrade's death, but he did not feel guilt over his decision to close the hatch. This situation is analogous to a military physician's having to place priority for true military necessity over the needs of his patient. Once again, however, the conflict exists between two goals (service to the military mission of protecting society and service to the individual patient or sailor), both of which warrant moral weight.

As has been emphasized in this chapter, the military physician is a physician first and usually can continue to place his patient's interests first. It is the uncommon situation that requires placing priority on military necessity. However, as has been seen, these situations can and do arise. If military and civilian policy makers and military physicians providing care have been able to examine these issues as discussed in these volumes, and are able to apply these analyses to specific dilemmas, they may be more able to make very difficult decisions and justifiably be more able to live with them. The physician who serves in the military is in the best position to study the dilemmas and, by having examined them prior to being in an emergency situation (for example, in combat), is best able to attempt to resolve them appropriately. We hope this chapter, as well as all of the chapters in these two volumes, will generate further analysis and can help military physicians accomplish their mission in the most ethical manner possible.

## REFERENCES

1. Lieutenant General Ronald R. Blanck (Retired), formerly The Surgeon General, US Army. Personal Communication, May 2002.
2. Jeffer EK. Medical units: Who should command? *Mil Med.* 1990;155:413–417.

3. Jeffer EK. Command of military medical units: Grounding the paradigm. *Mil Med.* 1996;161:346–348.
4. Moore WL Jr, DeDonato DM, Frisina ME. *An Ethical Basis for Military Medicine*. A working draft of a paper proposal. January 1995.
5. United States Code, Title 10. Armed Forces, Subtitle B. Army, Part II. Personnel Chapter 355. Hospitalization, Section. 3723. Approved 13 November 1998.
6. Meyer JM, Bill BJ. *Operational Law Handbook*. Charlottesville, Va: International and Operational Law Department, The Judge Advocate General's School; 2002.
7. Haritos-Fatouros M. The official torturer: A learning model for obedience to the authority of violence. *J Appl Soc Psychol.* 1998;18(13):1107–1120.
8. Howe EG, Martin E. The use of investigational drugs without obtaining servicepersons' consent in the Persian Gulf. *Hastings Cent Rep.* 1991;21:21–24.
9. Cieslak TJ, Rowe JR, Kortepeter MG, et al. A field-expedient algorithmic approach to the clinical management of chemical and biological casualties. *Mil Med.* 2000;165(9):659–662.
10. Ferrari R, Russell AS. The problem of Gulf War syndrome. *Med Hypotheses.* 2001;56(6):697–701.
11. Howe EG. The Gulf War syndrome and the military medic: Whose agent is the physician? In: Zeman A, Emanuel LL, eds. *Ethical Dilemmas in Neurology*. London: WB Saunders Co; 2000: 139–156.
12. Nass M. Anthrax vaccine: Model of a response to the biologic warfare threat. *Infect Dis Clin North Am.* 1999;13(1):187–208.
13. Blanck RR. Anthrax vaccination is based on medical evidence. *Am J Public Health.* 2000;90(8):1326–1327.
14. Surveillance for adverse events associated with anthrax vaccination: US Department of Defense, 1998–2000. *MMWR Morb Mortal Wkly Rep.* 2000;49(16):341–345.
15. Strom B. As cited in: Larkin M. Anthrax vaccine is safe and effective—but needs some improvement, says IOM. *Lancet.* 2002;359:951.
16. Howe EG. Medical ethics: Are they different for the military physician? *Mil Med.* 1981;146:837–841.
17. Howe EG. Ethical issues regarding mixed agency of military physicians. *Soc Sci Med.* 1986;23:803–813.
18. Marino MT. Use of surrogate markers for drugs of military importance. *Mil Med.* 1998;163(11):743–746.
19. Henderson DA, Inglesby TV, Bartlett JG, et al. Smallpox as a biological weapon: Medical and public health management. Working Group on Civilian Biodefense. *JAMA.* 1999;281(22):2127–2137.
20. Mayers DL. Exotic virus infections of military significance: Hemorrhagic fever viruses and pox virus infections. *Dermatol Clin.* 1999;17(1):29–40.
21. Haim M, Gdalevich M, Mimouni D, Ashkenazi I, Shemer J. Adverse reactions to smallpox vaccine: The Israeli Defence Force experience, 1991 to 1996. A comparison with previous surveys. *Mil Med.* 2000;165(4):287–289.
22. Carter BS. Ethical concerns for physicians deployed to Operation Desert Storm. *Mil Med.* 1994;159(1):55–59.
23. Longmire AW, Deshmukh N. The medical care of Iraqi enemy prisoners of war. *Mil Med.* 1991;156(12):645–648.
24. McDonald R, Cao T, Borschel R. Multiplexing for the detection of multiple biowarfare agents shows promise in the field. *Mil Med.* 2001;166(3):237–239.

25. Wiener SL. Strategies for the prevention of a successful biological warfare aerosol attack. *Mil Med.* 1996;161(5):251–256.
26. Policy concerning homosexuality in the armed forces. General Military Law, Armed Forces, 10 USC Sect 654 (2000).
27. The Secretary of Defense. *Policy on Identification, Surveillance and Disposition of Military Personnel Affected With HTLV-III*. Memorandum, 24 October 1985.
28. National Defense Authorization Act for Fiscal Year 1987. Pub L 99-661, Division A, Title 7, 705c(1986). Codified in 10 USC 1074.
29. Maze R. Hill, services debate [adverse actions] after confidential interviews. *Navy Times*. 29 June 1987:3.
30. Howe EG. Ethical aspects of military physicians treating patients with HIV/Part one: The duty to warn. *Mil Med.* 1988;153:7–11.
31. National Museum of Health and Medicine. Exhibits. Available at: <http://www.natmedmuse.afip.org/exhibits/dna/identification/identification.html>. Accessed 23 May 2002.
32. Holland MM, et al. Mitochondrial DNA sequence analysis of human skeletal remains: Identification of remains from the Vietnam War. *J Forensic Sci.* 1993;38(3):542–553.
33. Repository History. Available at: <http://www.afip.org/Departments/oafme/dna/history.htm>. Accessed 23 May 2002.
34. US Department of Defense. *Armed Forces Institute of Pathology (AFIP)*. Washington, DC: DoD; 28 October 1996. DoD Directive 5124.24.
35. Request for Specimen Destruction. Available at: <http://www.afip.org/Departments/oafme/dna/EarlyDest.htm>. Accessed 1 March 2002.
36. DNA Samples. Available at: <http://www.uscg.mil/hq/mcpocg/1medical/rcdna01.htm>. Accessed 1 March 2002.
37. US Department of Defense. *Policy for Implementing Instructions for Early Destruction of Individual Remains Identification Reference Specimen Samples*. DoD Policy Memorandum, 4 November 1996.
38. *Mayfield v Dalton*, 901 F. Supp 300, 303 (D. Hawaii 1995).
39. Wakin MM. Wanted: Moral virtues in the military. *Hastings Cent Rep.* 1985;15(5):25–26.





# Afterword

In these two volumes we have explored at some length the tension between the profession of medicine and the profession of arms, and have suggested that this tension is appropriate and desirable. Military medical ethics provides a framework for understanding this tension and working through it to find the best and most ethical solution to the challenges that present themselves, especially on the battlefield. It is our hope that having discussed various views of what ought to comprise such an ethic, our readers will begin to formulate the positions they might take on ethically challenging issues in the future. These positions will be varied. One might ask, then, “Is there an absolute answer to what military medical ethics should be?” Our response would be that many things can be said, by different persons, from many different perspectives. We would offer for your consideration the following comments by Ronald F. Bellamy, MD, the Military Medical Editor of the *Textbooks of Military Medicine*.

Metaethics, the study of the nature of ethical judgments, offers little hope that there will ever be an overarching, universally accepted, and applicable vision of the good that will be binding on everyone at all times and places. For some, religion provides a comprehensive moral vision, but not all hear the same message. At best there are a variety of visions of the good that are held by some with absolute conviction while being denounced by others with similar passion or, more commonly, simply ignored by most. The conflict between competing moral visions becomes especially acute in a secular society such as ours that has a willingness to accept varying viewpoints as long as they do not threaten the stability of the society. The law of the land, especially the 10 amendments to the Constitution that comprise the Bill of Rights, reflects this view. Of course, cynics would say that the law itself is a reflection of the moral vision of whatever group of the society has the most political power. Over time the law is modified as the need arises; thus an all embracing absolute moral vision is unlikely to be found in a democracy such as that of the United States.

In place of an absolute, we find a synthesis of various visions of what individuals take to be the good. As Englehardt said

this taken-for-granted sense of moral propriety is likely not only to be largely unquestioned, but also to appear largely unquestionable. The more one lives within the secular pluralistic embrace of a cosmopolitan society, the more the fabric of taken-for-granted morality will be a cento [a literary work made up from parts of other works] woven haphazardly out of pieces of diverse moral visions.<sup>1(p33)</sup>

This “taken-for-granted sense of moral propriety” is inculcated in a more intense and formal fashion in a tightly cohesive group such as the military and even more so in other professions such as medicine, religion, or the law. Not surprisingly, there can be conflicts between the exclusive moral visions of these various groups. As such, it should not surprise observers that the ethics of military medicine is the source of more passionate debate than any other aspect of the philosophy of ethics. Nowhere else is there likely to be such a stark and ongoing conflict between what, at times, are radically different views of what constitutes the good. The dialogue, if there is any, seems to be one-sided, medical ethicist talking to medical ethicist while those espousing the ethics of protecting the society (including those who make national policy) talking to their associates, each side arguing that their intuition of what is right and wrong should take precedence.

Medical ethicists, including some physicians, attempt to transpose unaltered clinical ethics as practiced in large US hospitals, where the emphasis is on the principles of beneficence and patient autonomy, to the radically different circumstances of the battlefield. Within the context of a military operation, the attempt to practice civilian medical ethics is likely to be a futile and contentious endeavor. An example taken from the writings of Edmund Pellegrino may suffice to show the chasm that exists. Regarding the rationing of care, a frequent occurrence on the resource-constrained battlefield, Pellegrino has written:

In implicit rationing—rationing carried out by the physician—the physician is forced to act against his own patient's needs. He becomes an adversary, not an advocate.<sup>2(p19)</sup>

Seen from this view, it would be unethical for triage decisions to be made by a military physician. The only recourse would be for such personnel as physician assistants or medics, or even laymen such as unit commanders—individuals who have not formally embraced the traditional ethical code of the physician nor who have had the same degree of medical training—to make the fundamentally important decision as to who is to be treated and who should be sent back to duty. It should be obvious that the same considerations apply to the civilian mass casualty situations.

Of course, the military physician does not have the expectation or the luxury of delegating these difficult decisions about who should live and who should not, as this would be an abrogation of his duties as an officer, sworn to follow all legal orders and uphold the Constitution of the United States of America. The problem arises when medical ethicists believe in the near absolute priority of traditional medical ethics over all other claims of what the society expects of the physician. Compounding the issue is, as has been pointed out by Bloche in his comments on the writing of Stone, that clinical ethics is a “dialectic of obligations.”<sup>3(p270)</sup> Help your patient and do no harm. However, it provides no mechanism for ranking the priorities arising from other moral visions of the good (such as defending the nation against an enemy) in the context of medical ethics. Unfortunately, the philosophers of the ethics of war pay scant attention to the issues raised by medical ethics.

Given that some perceive a conflict between the duty of the military physician to his patient and his duty to the larger society, neither ethic provides a mechanism for accommodating the other viewpoint. Given that metaethics provides no way to resolve the conflict between these two senses of the right, we must fall back on the law of the land, which is, after all, a historic consensus of the right and what must be done for there to be a just society. Military physicians should, and do, understand this. Some military physicians may, however, come to the conclusion that their closely held view of the right and the good is such that they find it morally reprehensible to be tasked with carrying out legal military orders. If they find themselves in disagreement with the legal orders affecting their medical duties, they can refuse to perform those duties, understanding that they must also accept the consequences of their refusal. Democratic societies and their militaries, such as the United States, continue to evolve in their shared consensus of the right and the good. Military physicians, by being aware of the tension between the two professions of medicine and arms, help in the evolution of consensus that is so vital to a viable military force.

Sources: (1) Engelhardt HT Jr. *The Foundations of Bioethics*. 2nd ed. New York: Oxford University Press; 1996. (2) Pellegrino ED. Is rationing ever ethically justifiable? [Commentary]. *Pharos*. Summer 2002;18–19. (3) Bloche MG. Clinical loyalties and the social purposes of medicine. *JAMA*. 1999;281(3):268–274.

## INDEX

### A

- AARs. *See* After-action reviews
- Abortion
  - contemporary philosophers and 7
  - Jews in Nazi Germany and 412, 415
  - patent autonomy and 71
  - restrictions on for healthy German women 412
- Abrams, Dr. Herbert
  - Nuremberg Doctors' Trials comments 516
- Abuse of Casuistry, The* 693
- Academia
  - extended separatism and 203, 211
  - fusionism and 208
  - paternalistic separatism and 211
- ACHRE. *See* Advisory Committee on Human Radiation Experiments
- Ackerman, T.F.
  - moral philosophers' qualification to be clinical ethicists 75
- Acquired immunodeficiency syndrome. *See also* Human immunodeficiency virus
  - applied medical ethics and 35
  - clinical ethics and 35
  - combination therapy for 731
  - homosexuals in the military and 151
  - impact of within the military 731
  - incidence of 732
  - military policy regarding 732
  - protection of people in foreign countries from HIV/AIDS infection by service persons 732
  - public policy medical ethics and 34
  - treatment progress 731
- Act of healing, helping, and curing 12
- Adenosine 5'-triphosphate
  - Lazarus Project and 844
- Adjusting resource consumption to the mission need
  - case study 817
- Administering drugs to assist interrogation
  - case study 396
- Adultery
  - case study 347, 355, 861
  - military culture and 191
  - vulnerability to extortion and 352
- Advisory Committee on Human Radiation Experiments
  - classified research and 595
  - creation of 524
  - documentation of violations of ethical conduct 568
  - human research subject recruitment recommendations 590
  - limitations to research 521, 523
  - mission of 548
  - plutonium research and 524
  - study on why patients volunteer for research 591
- AEC. *See* U.S. Atomic Energy Commission
- Afghanistan
  - "quick reaction" forces in 783
- AFMPC. *See* Armed Forces Medical Policy Council
- African-Americans
  - lactose intolerance and 700
- After-action reviews
  - description 179
- Agent Orange
  - treatment and compensation for health conditions associated with exposure to 724, 735, 736
- Aidid, Mohammed Farah
  - attempted capture of by U.S. forces 181
- AIDS. *See* Acquired immunodeficiency syndrome
- Aizawa saburo, Lt. Col.
  - assassination of Gen. Nagata Tetsuzan 473
- Alameda County, CA
  - study of the effects of religious and spiritual commitment on survival 697
- Albuquerque Tribune*
  - articles on plutonium research on human subjects 523
- Alcohol abuse
  - DoD policy on 726
- Alcoholism
  - alcoholic general case study 345, 860
  - religious beliefs and 696
  - reporting requirements 351
  - separation anxiety mistaken for alcoholism case study 347
- Alequerque Tribune*
  - articles on plutonium research on human subjects 523, 524
- Alexander, Maj. Leo
  - Nazi hypothermia and hypoxia research analysis 441, 459
- "Alexander Report" 441, 459
- Algeria
  - war of national liberation 231
- All Volunteer Force
  - harm principle of autonomy and 256
  - increase in the number and proportion of minorities and 724
  - maintenance of a 50-50 mix between careerist and first-termers 729
  - resocialization and 722
  - value of retaining trained personnel and 727
  - women in 726, 735
- Allen, Elmer
  - Allocating medical resources in a rapidly changing military environment case study 821
  - plutonium research subject 525
- AMA. *See* American Medical Association
- Ambrose, S.E.
  - value of initiative in battle 146
- AMEDD. *See* Army Medical Department
- American Board of Internal Medicine
  - importance of teaching medical ethics 83
  - statement on *Evaluation of Humanistic Qualities in the Internist* 74
- American Board of Pediatrics
  - Teaching and Evaluation of Interpersonal Skills and Ethical Decisionmaking in Pediatrics* 74
- American Expeditionary Force
  - surplus supplies for the American-Polish Relief Expedition 778
- American Guinea Pigs* 524
- American Medical Association
  - Code of Ethics 5, 11, 66, 273
  - human experimentation position 515, 516
  - journal article on the use of pyridostigmine bromide 573
  - official position on physician participation in capital punishment 394
  - Opinions of the Council on Ethical and Judicial Affairs 11
  - "Principles of Medical Ethics" 273
  - refusal to admit African-Americans to its membership 412
  - World Medical Association membership 753

- American Nurses' Association
  - code of ethics 666, 679
  - Committee on Ethics 667
  - "Guidelines for Implementing the Code for Nurses" 667
  - "Guidelines on Reporting Incompetent, Unethical or Illegal Practice" 681
  - "Human Rights Guidelines for Nurses in Clinical and Other Research" 680
  - "Preparation of Nurses for Participation in and Utilization of Research" 680
  - rights of persons who participate in research 680
- American Psychiatric Association
  - guidelines on religious belief 712
  - posttraumatic stress disorder diagnosis 724, 735
- American Psychological Association
  - homosexuality guidelines 729
- American Relief Administration
  - American-Polish Relief Expedition to eliminate typhus 777
  - disaster relief to Armenian refugees 777
  - establishment of by Pres. Wilson 777
  - nation building missions 777
- American Scholar*
  - forcible euthanasia merits 413
- American-Polish Relief Expedition
  - typhus elimination mission 777
- Amitani Shogo, Prof.
  - postwar activities 494
- Amphetamines
  - action of 841
- ANC. *See* Army Nurse Corps
- Anda
  - Japanese biomedical experimentation site 484
- Animal experimentation. *See also* Human experimentation
  - alternatives to 554
  - animal rights position 554
  - animal suffering *versus* the primacy of human life 552
  - ballistic phenomena studies and 537
  - ethical theories and 553
  - hypothermic suspended animation 845
  - issue of how much animal use is justified 555
  - "miniride" principle 554
  - moral status of animals 552, 553
  - use of animals for food and clothing and 552
  - "worse off" principle 554
- Annas, G.J.
  - conservation as metaphor 283
- Annas, George
  - Nuremberg Doctors' Trials comments 516, 519
- Anovulatory pill contraception option
  - women's liberation and 69
- Antarctic Treaty
  - provisions 235
- Anthrax
  - Iraq biological weapons program component 543
  - Japanese biomedical experimentation on 483, 492
  - postwar epidemics of 487
  - sent through the federal mail system 858
- Anthrax vaccine
  - accurate recordkeeping and 298
  - empirical assumptions regarding the safety and efficacy of 338
  - potential risks of mass administration 299
  - required administration of 299, 315, 337, 858
- Anthropology
  - contribution to descriptive ethics 108
  - questions about normative claims and 116
  - studies of societies' treatment of elderly persons 112
- Anti-anxiety medications
  - addictive nature of 842
  - aftereffects of 843
  - alternatives to 843
  - fear reduction and 842
  - side effects 842
  - society's awareness of soldiers' sacrifices and 843
  - state-dependent learning and 842
- Anti-Semitism. *See also* Judaism; Nazi medical ethics
  - Jews as scapegoats for all that was wrong in modern medicine 417
  - "medicalization" of 415
  - racial hygiene movement and 408
- Antiauthoritarian
  - causes of 69
- Antifoundationalism
  - causes of 69
  - human experience of illness and 17
  - postmodernism and 7
- Antipsychotic drugs
  - action of 842
- Antitobacco movement
  - in Nazi Germany 409, 419
- Anxiety. *See* Anti-anxiety medications
- Applied medical ethics
  - communitarian ethics 41
  - deconstructionism and 70
  - definition 72
  - feminist ethics 10, 46
  - four-principle approach 34, 36
  - issues addressed 34
  - libertarian ethics 34, 39
  - narrative ethics 10, 43
  - principlism 36, 70
- Arab countries. *See also specific countries*
  - food deprivation and illness 699
- Arab-Israeli War
  - anticipatory self-defense in the form of preemptive war 227
- Araki Sadao (War Minister General, Japan)
  - patron of Ishii Shiro 475
- Archiv für Rassen-und Gesellschaftsbiologie* 408
- Argentina
  - military dominance of the government 138
- Aristotle
  - "ethics" definition 107
  - goodness of actions principle 32
  - justice principle and 37
  - Nichomachean Ethics 64
  - prudent judgement or practical wisdom and 15
  - "virtue" definition 14
  - virtue theory 10, 31, 33, 64
- Armed Forces Medical Policy Council
  - Nuremberg Code and 521
- Army Chemical Corps
  - secret contract to test the effects of hallucinogens 526
- Army Medical Department. *See also* Army nurse Corps; Physician-soldiers
  - collective ethics and 285
  - motto 285, 296, 374
  - rotation of U.S. military medical personnel in El Salvador 795
- Army Medical Department Standards of Nursing Practice* 675
- Army Nurse Corps
  - establishment of 665, 666
  - graduate education opportunities 680
  - specialty training 666
- Army Student Nurse Program
  - eligibility of men for 667



- Army-Navy Nurse Act  
 commissioned officer status for registered nurses 666
- Arras, J.D.  
 casuistry description 64
- Artaxerxes II, King of Persia  
 request for Hippocrates to provide care for Persian soldiers 302
- Artificial feeding  
 Barber and Nedjl Case 88, 97  
 Brophy Case 88, 98  
 Conroy Case 88, 98  
 Cruzan Case 88, 100
- Asian cultures. *See also specific countries*  
 dietary practices 700
- Atomic Energy Commission  
 test-exposure limits 569
- ATP. *See* Adenosine 5'-triphosphate
- Atrocities. *See also* Japanese biomedical experimentation during the World-War-II era; Nazi medical ethics  
 definition of criminal acts and 174  
 dynamics of 174  
 ethical-operational issues 172  
 national objectives, military culture and 172  
 prevention of 175  
 sociopaths and 174
- Augustine, Saint  
 just war doctrine 223  
 principle of discrimination and 241
- Auschwitz  
 hypothermia studies 447
- Austere conditions model of triage  
 description 381, 383
- Autonomy principle  
 absolutization of 37, 39  
 Americans' view of 255  
 as a "side constraint" 30, 38  
 beneficence and 37, 38  
 beneficence-in-trust principle and 40  
 bioethics debate in the United States and 54  
 civilian sector and 253, 265  
 clinical encounter and 14  
 combat stress breakdown 374  
 conflicting rights and duties of the military and the soldier 259  
 conscientious objection and 257  
 deontological theory and 29  
 diversity of people's views of morality and 254  
 enforced treatment for individual soldiers and 380  
 euthanasia on the battlefield and 389  
 extreme conditions model of triage and 383  
 following orders and 261  
 harm principle 253, 255, 256  
 human research subjects and 573, 577  
 imbalance of power within the patient-physician relationship and 854  
 individual liberty and the needs of the army 256  
 informed consent and 314  
 Judaism and patient autonomy 689  
 legal moralism principle 254, 255  
 libertarianism and 39  
 medical care issues 256  
 necessity for restrictions on 255  
 nurses in the military and 674  
 paternalism principle 254  
 "personal autonomy" definition 253  
 preponderance in American bioethics 39  
 reasons to value autonomy 253  
 self-determination and 39  
 soldiers and 253, 318, 324  
 soldiers as research subjects and 547  
 soldiers' risk and 857  
 substituted judgement theory and 115  
 United States laws and 255  
 using one set of principles for each distinct goal 255  
 weakness of 37
- AVF. *See* All Volunteer Force
- Ayer, A.J.  
 philosophers as moral experts 75
- Azidothymidine  
 AIDS treatment 731, 732
- AZT. *See* Azidothymidine
- ## B
- Baby M Case 88, 99
- Bacillus subtilis variant niger*  
 surreptitious release of in the New York City subway system 527
- Bacteriological (Biological) Convention  
 provisions 224
- Balkans  
 United Nations request for military humanitarian assistance 798
- Bangkok  
 Japanese biomedical experimentation site 481
- Barber and Nedjl Case 88, 97
- Bassett, Dr. Samuel  
 plutonium research on human subjects and 524
- Bataan Death March  
 atrocity example 172, 174, 175
- Battle at Pickett's Mill  
 case study 263
- Battle fatigue. *See* Combat stress breakdown
- Battlefield medical ethics. *See also* Military medical ethics  
 battlefield triage 380  
 challenges of 371  
 euthanasia 384  
 factors encountered that have no civilian counterpart 399  
 logistics of combat and 371  
 participation in interrogation of prisoners of war 394  
 rapid evacuation of casualties and 371  
 return to duty considerations 372  
 uncertainty of resupply and 371  
 unpredictable nature of the battlefield and 371  
 use of medical evacuation assets to remove troops killed in action 372
- Beauchamp, T.L.  
 beneficence, nonmaleficence, autonomy, and justice principles 14, 36, 71  
 four requirements that must be met to justify "infringements" of a prima facie principle 37  
 normative ethics principles 38, 71
- Beijing  
 Japanese biomedical experimentation site 481
- Beiyinhe  
 Japanese biomedical experimentation site 478  
 prisoner insurrection 478
- Bellamy, Dr. Ronald F.  
 medical ethics comments 867
- Belligerent occupation  
 civil war and 238  
 forcing an occupied population to take part in the war against their own side 238

- "precarious occupation" 238
- resistance movements and 238
- Belmont Report*
  - beneficence principle 577
  - description 572
  - ethical conduct of biomedical research and 545, 546, 550, 693
  - justice principle 578, 592
  - principlism example 36
  - "research" definition 572
  - respect for persons principle 573, 577
  - text of 604
  - three ethical principles 573, 577
- Beneficence principle
  - autonomy and 37, 38
  - clinical encounter and 13
  - deconstructionism and 71
  - enforced treatment for individual soldiers and 378, 379
  - euthanasia on the battlefield and 391
  - excluding women and minorities from research protocols and 556, 579
  - Hippocratic Oath and 37
  - human research subjects and 577
  - nurses in the military and 673
  - overriding of veracity by 65
  - return to duty considerations 376, 378
- Beneficence-in-trust principle
  - autonomy and 40
  - description 40
  - family context 41
  - healing as the good in medicine 40
  - strengths 41
  - truth-telling case study and 41, 53
  - weaknesses 41
- Beneson, Abram
  - biological weapons testing and 527
- Benevolence character trait of physicians 14
- Bentham, Jeremy
  - utilitarian theory 28
- Benzodiazepines
  - action of 842
- Biko, Steve
  - death from head injuries received during torture 396
- Bioethics. *See* Medical ethics
- Bioethicsline online resource 121
- Biological determination
  - racial hygiene movement and 408
- Biological warfare. *See also* Biological weapons; *specific agents, e.g., Anthrax*
  - surreptitious testing in American cities 527
  - U.S. Army tests in America 526
  - United States biological warfare program 492, 526
  - United States interest in Japanese World War II research results 492
- Biological weapons. *See also* Biological warfare; Chemical weapons; Japanese biomedical experimentation during the World-War-II era; *specific pathogens, e.g., Anthrax*
  - ban on 234
  - contemporary considerations and questions 440, 858
  - escalation of due to military biomedical research 542, 543
  - Geneva Gas Protocol and 225
  - immunizations and 298, 314, 315, 337
  - medical biological defense research 537
  - necessity of finding prophylactic agents for 858
  - participation of physician-soldiers in research on 305
  - sanctions for violations of prohibitions against 238
- Biological Weapons Convention
  - military biomedical research and 537
  - military biomedical research reports to 543
  - preclusion of research into offensive agents necessary to determine what means are required to defend against them 542
  - research consistent with the intent of 543
- Biomedical experimentation. *See* Japanese biomedical experimentation during the World-War-II era; Military biomedical research
- Blanck, Lt. Gen. Ronald
  - military physicians as military officers 853
- Blassie, Lt. Michael
  - DNA identification of 859
- Blauer, Harold
  - hallucinogen research subject 526
- Blaufarb, D.S.
  - military civic action as a viable concept 782
- Bloche, M.G.
  - clinical ethics as a "dialectic of obligations" 868
- Blood substitute
  - human experimentation 515
- "Bloodless" war
  - "CNN effect" and 835
  - society's expectations of medical care for wounded U.S. soldiers and 835
- Boatman, J.
  - Q Program* secret plane development 211
- Bolton, Rep. Frances P.
  - efforts to appoint men as nurses in the Army, Navy, and Air Force 667
- Borrowing from others at the U.S. Military Academy
  - example of the harm principle 254
- Bosnia
  - atrocities and the war aims of the conflicting parties 172
- Boston Medical Police, The* 66
- Botulin
  - Iraq biological weapons program component 543
- Botulism
  - insufficient supplies of agents to prevent 338
- Bouhler, Philip
  - sterilization of Jews 415
- Bourne, Dr. Peter
  - task of the Special Forces in Vietnam 304
- Boxing requirement at the U.S. Military Academy
  - example of the harm principle 253
- Brack, Viktor
  - physicians as administrators of euthanasia 414
  - sterilization of Jews 415
- Bray, R.M.
  - substance use and abuse by military personnel 726
- Brazil
  - military dominance of government 138
  - physician involvement in torture of prisoners 396
- British Medical Association
  - ethical code 11
- Brody, Baruch
  - criticism of principlism 38
  - moral pluralism model of conflicting appeals 46
  - theoretical framework for ethics research 120
- Brody, Howard
  - clinical ethics description 63
  - decision tree analytic method 51
  - purpose of medical ethics 47
- Brooke Army Medical Center
  - battlefield medical ethics conference 388
- Brophy Case 88, 98
- Brown v Board of Education*
  - desegregation and 724
- Burgdörfer, Friedrich

- German birth rate 412
- Burns vs. Wilson*
  - individual rights and the overriding demands of discipline and duty 150
- Burrelli, D.F.
  - complaints about care received in military medical facilities 729
- Bush, Vannevar
  - Office for Scientific Research and Development head 513
- Business and industry
  - extended separatism and 203
  - fusionism and 214
- Business model of the patient-physician relationship 8, 34
- Buxton, Peter
  - questions about the morality of the syphilis nontreatment study 520
- BW. *See* Biological weapons
- BWC. *See* Biological Weapons Convention

## C

- Cabot, Dr. Richard
  - schematic of patient needs (figure) 68
- Cade, Ebb
  - plutonium research subject 524
- Cali, D.
  - the culture of physicians 703
- Callahan, Daniel
  - Institute of Society, Ethics, and the Life Sciences founder 73
- Calley, Lt. William
  - My Lai massacre and 142, 175, 264
- Calvinism
  - religious tradition of 691, 710
- Canada
  - Rwanda peacekeeping mission 825, 828
- Cancer research
  - DoD's breast cancer research program 557
  - protection of research subjects and 519
- Canton
  - Japanese biomedical experimentation site 481
- Caplan, A.L.
  - belief that clinical ethicists should be clinician 75
- Care of subordinates
  - administrative and logistical support 168
  - as a crucial component of honor 165
  - balancing the mission against troops' welfare 169
  - "can do" ethic and 170, 189
  - caring for families and 168
  - competent leadership and 166
  - demand overload and 170
  - developing subordinates' competence 167
  - during the 19th century 166
  - during the 20th century 166
  - effects of commanders' technical incompetence (exhibit) 167
  - is the unit the team, or is the officer corps the team? (exhibit) 171
  - overriding common sense and 170
- Caregivers
  - guidelines 711
  - psychological difficulties of medical personnel in humanitarian assistance programs 825
  - resources 714
- Caring ethics
  - case study descriptions and 115
  - external morality example 10
  - feminist ethics and 43
  - influence on nursing ethics 109
- Carrel, Alexis
  - euthanasia for criminals and the mentally ill 413
- Carruths, P.J. and A.K.
  - continuing education in ethics for nurses 677
- Carter, B.S.
  - equal treatment of prisoners of war 319, 320
- Carter, Pres. Jimmy
  - Executive Order on Intelligence Activities 526
  - seizure of U.S. Embassy and staff in Tehran and 782
- Case for Animal Rights, The* 554
- Case studies. *See also* Truth-telling case study
  - a MEDCAP exercise in rural Africa 810
  - adjusting resource consumption to the mission need 817
  - administering drugs to assist interrogation 396
  - adultery 347, 355, 861
  - alcoholic general case 345, 860
  - allocating medical resources in a rapidly changing military environment 821
  - Baby M Case 88, 99
  - Barber and Nedjl Case 88, 97
  - Battle at Pickett's Mill example of moral ambiguity 263
  - Brophy Case 88, 98
  - Capt. Yolanda Huet-Vaughn 260, 307, 312, 318
  - changing environments in a medical assistance effort 819
  - Col. Gray's dilemma and its resolution 152
  - communicating MEDCAP limitations to a local population 815
  - Conroy Case 88, 98
  - Cruzan Case 100
  - "Dax" Case 88, 96
  - descriptive ethics and 115
  - diagnosis of local diseases 812
  - disobeying orders-the "risks" associated with the desire to help 820
  - Georgetown Case 88, 93
  - "good intentions" left in the latrine 813
  - Hopkins Case 88, 93
  - Howard Levy 304, 305, 312, 317, 320
  - inappropriate surrogate 862
  - life following tragedy 676
  - logistics 837
  - "looking the other way": participation by silence 398
  - Lt. Stone's dilemma 131, 154
  - mission priorities and medical care 822
  - My Lai massacre 264
  - new questions arising from 116
  - political pacifism 260
  - providing feasible medical care to indigenous populations in a combat zone 818
  - Quinlan Case 73, 88, 94
  - rape victim's confidentiality 345
  - Saikewicz Case 88, 96
  - separation anxiety mistaken for alcoholism 347
  - situational pacifism 260
  - substance abuse 346
  - survivor guilt 356
  - Swann scenario 384, 388
  - tailoring the organizational response to the local need 818
  - Tarasoff Case 37, 88, 95
  - the ghetto hospital 387
  - the terrified wounded POW 391
  - Timothy E. Quill, "Jane Roe," et al 88, 102
  - understanding cultural needs of patients 824
  - what should Leah be told? 689
  - withholding or delaying treatment to facilitate interrogation 396
- Case-control studies

- description 582
- Castro, Fidel
  - guerilla forces in El Salvador and 783
- Casuistry
  - as principlism's chief opponent 693
  - Catholicism and 10, 45
  - consensus on principles and 45
  - definition 63
  - dependence on good case descriptions 115
  - focus of 44
  - Jewish moral tradition and 45
  - strengths 45
  - weaknesses 45
- Catholic Church
  - casuistry and 10, 45
  - chivalry influence 134
  - principle of discrimination and 241, 242
  - religious symbols 699
  - Vatican Council changes 69
- CBUs. *See* Cluster bomb units
- CDC. *See* Centers for Disease Control
- Cellular metabolism
  - Lazarus Project and 844
- Center for Defense Information
  - criticism of the military 211
- Centers for Disease Control
  - responsibility for governmentally sponsored medical research 542
  - risk assessment for zinc cadmium sulfide release over cities 527
  - Tuskegee Syphilis Study and 520
- Central America. *See also specific countries*
  - beginnings of the DoD humanitarian mission 785
  - impact of humanitarian assistance 796
  - instability in as a military interest to the United States 785
  - nation building in 783
  - turmoil of the late 1970s and early 1980s 783, 785
- CHAMPUS. *See* Civilian Health and Medical Program of the Uniformed Services
- Chang Teh
  - Japanese pathogen tests on civilians 484
- Chang Tso-lin, Marshall
  - plot to assassinate 473
- Changing environments in a medical assistance effort
  - case study 819
- Chaplain
  - combat stress breakdown and 180
- Chemical warfare
  - gas warfare agent research 513
- Chemical weapons. *See also* Biological weapons; Japanese
  - biomedical experimentation during the World-War-II era
  - contemporary considerations and questions 440
  - escalation of due to military biomedical research 542, 543
  - Geneva Gas Protocol and 225, 233
  - Hague Conventions and 233
  - immunizations and 298, 314, 315, 337
  - military biomedical research 538
  - protective overgarments and 313, 378, 579, 593
  - regulations against the use of 233
  - sanctions for violations of prohibitions against 239
- Chemical Weapons Convention
  - concerns for physician-soldiers 308
- Chichibu, Prince (Japan)
  - biomedical experimentation role 469
- Children
  - as human volunteers in military biomedical research 577, 587
  - equipment and staffing problems associated with treating in
    - humanitarian assistance programs 817
    - land mine injuries 794
    - military care issues related to 728
    - participation in medical research 42
    - vaccination program in Honduras 796
- Childress, J.F.
  - beneficence, nonmaleficence, autonomy, and justice principles 13, 36, 71
  - four requirements that must be met to justify "infringements" of a prima facie principle 37
  - primacy of autonomy 39
- China. *See also specific provinces and cities*
  - ethical code of Chinese physicians 11
  - Japanese biomedical experimentation in 475
  - nuclear weapons capability 233
  - pathogen tests on civilian villages in China (exhibit) 484
  - postwar epidemics due to infected animals released by the Japanese from their research facilities at the end of the war 487
  - yin and yang concepts 701
- Chivalry
  - feudal system and 134
  - war-conduct law and 231
  - war-decision law and 224
- Cholera
  - Japanese biomedical experimentation on 487
  - vaccine research by the United States on Philippine prison inmates 511
- Christianity. *See also specific Christian religions*
  - influence on clinical ethics 64
  - introduction of Christian ethical principles 71
  - just war doctrine and 223
- Christopher, Paul
  - double-effect principle 153
- Church, Sen. Frank
  - investigation of clandestine testing by the CIA and Department of Defense 526
- CIA. *See* U.S. Central Intelligence Agency
- Cicero
  - influence on clinical ethics 64
- "Civil Operations, Revolutionary Development Support" effort
  - description 782
- Civil Rights Act of 1965
  - women's liberation and 69
- Civil War
  - Battle at Pickett's Mill case study 263
  - belligerent status principle and 231
  - care of subordinates and 166
  - Dorothea Dix's appointment as Superintendent of the Female Nurses of the Union Army 664
  - emergence of women from home to larger societal purpose 664, 682
  - Lieber Code and 225, 246
  - objective of all health services 296
  - ratio of deaths from disease *versus* combat 727
- Civilian Health and Medical Program of the Uniformed Services
  - retirees and 728
- Civilian populations
  - as military targets 310
  - aspects of providing civilian medical care during contingency operations 818
  - equipment and staffing problems associated with treating in humanitarian assistance programs 817
  - Geneva Conventions and 744
  - Japanese biomedical experimentation on during World War II 481
  - treatment of by physician-soldiers 302, 384



- U.S. military as the cause of injury 823
- United States infectious disease research on 514
- Classic separatism
  - costs of isolation 210
  - dangers of letting the military play important roles in social policy 201
  - description 201
  - flaws of 209, 215, 217
  - fusionism and 206
  - military and politics and 202
  - paternalistic separatism and 204
  - societal change and 210
  - technological change and 210
- Clement of Alexander
  - overriding of veracity by beneficence 66
- Clinical ethicists
  - description 72
  - ethics consultation 77
  - medical choices and the patient's intuition 74
  - medical model for 75
  - new problems that arose in the 20th century 73
  - organizations for 74
  - physicians-in-charge and 78
  - professional journals for 74
  - public concern for violations of patients' rights 73
  - service responsibilities 77
  - structured reflection and 74
- Clinical ethics
  - American medical practice in the 18th and 19th cen 66
  - anatomy of clinical judgements (figure) 80
  - antifoundational and antiauthoritarian influences 69
  - as a "dialectic of obligations" 868
  - bedside teaching of 63, 75
  - British philosophical influences of the 18th and 19th centuries 65
  - cases in the "corpus of precedents" of clinical ethics (table) 87
  - casuistry 10, 44, 63
  - clinical ethicists 72
  - competency of the patient and 84
  - deconstructionist intellectual influences 70
  - definitions 63
  - disagreements arising in clinical practice and 83
  - "English gentleman" and his obligations to society 65
  - ethical workup guide (exhibit) 52
  - ethics committees 78
  - framing the issue 75, 77
  - Greek philosophical influences 64
  - grid models 47
  - healthcare professional influences 72
  - hermeneutical 46
  - house staff and 79, 83
  - issues addressed 34
  - methodological theories 44
  - methods of 75
  - moral pluralism 46
  - normative ethics and 46
  - origin of the term 63
  - patient-physician relationship and 75, 77
  - Pellegrino's ten-step workup (exhibit) 50
  - physician character traits 80
  - postmodern philosophical influences 71
  - precedent-setting cases 83, 93
  - research elements 79
  - rules for 46
  - scientific and medical influences 69
  - scientific model of medicine 68
  - teachers trained for 82
  - the patient as person concept 68, 69
  - therapeutic privilege concept 65, 67, 84, 338
  - unitary theory 46
  - workups 47, 75
- Clinical Ethics: A Practical Approach to Ethical Decisions in Clinical Method* 63
- Clinton, Pres. William J.
  - Advisory Committee on Human Radiation Experiments 524, 548
  - anthrax vaccination of troops and 337
  - apology for the Tuskegee Syphilis Study 474, 510
  - apology to the participants of the human radiation experiments 510
  - appointment of an oversight board to assist the direction of the DoD investigation into Persian Gulf War illnesses 725
  - establishment of the National Bioethics Advisory Commission 510
  - guidelines on the use of human subjects in classified research 596
- Clouser, K.D.
  - principlism criticism 36, 38
- Cluster bomb units
  - use during the Vietnam War 233
- CMR. *See* Committee on Medical Research
- CNN paradox
  - description 208
- Cocaine use. *See also* Substance abuse
  - legal moralism principle of autonomy example 254
- Code of Conduct for Members of the Armed Forces of the United States 144, 145
- Code of ethics 11, 18. *See also specific codes of ethics*
- "Code of Ethics for Nurses With Interpretive Statements"
  - 2001 version (exhibit) 668
  - nursing research and 679
  - revision and amendments 666, 682
  - successive revision of (exhibit) 670
- Code of Federal Regulations, Title 32-National Defense
  - text of 620
- Cognitive restructuring techniques
  - description 843
- Cohesion
  - combat stress breakdown and 179
  - homosexuality and 151
  - horizontal 163
  - integrity and 163
  - situational pacifism and 257, 259
  - vertical 163, 176, 184, 190
- Cohn, Edwin
  - blood substitute research 515
- Cohort studies
  - description 583
- Col. Gray's dilemma case study 152
- Cold air exposure. *See* Nazi hypothermia and hypoxia
- Cold War
  - biological warfare research 527
  - efforts to develop collective security 226
  - human experimentation during 521
  - linking of military civic action programs with the counterinsurgency movement 783
  - nuclear weapon development and 243
  - relationship of the United States and the Soviet Union and 492
  - return to duty considerations during (exhibit) 375
  - U.S./NATO deterrence/defense posture 245
  - war-decision law and 225
  - nuclear experiments done on soldiers during 207, 210
  - Soviet Military Power* portrayal of Soviet power in a "worst case scenario" 204

- Collective ethics
  - physician-soldiers and 285
- Combat casualty care research 537
- Combat ethics. *See also specific wars*
  - combatants' belief that they are not alone on the battlefield 177
  - confidence in skills and equipment and 176
  - enabling military personnel to carry out morally aversive acts 176
  - pathfinders in Iraq (exhibit) 176
  - restraining military personnel from committing atrocities 172
  - strengthening resistance to combat stress breakdown 178
  - trust in leaders and 176
  - "what's right" and 178, 179, 182, 183
- Combat fatigue. *See* Combat stress breakdown
- Combat stress breakdown
  - after-action reviews and 179
  - Army doctrine 373
  - autonomy principle and 474
  - basic principles of battlefield treatment for 826
  - chaplains and 180
  - combat stress control teams 180
  - ethical and psychological support for morale and character and 179
  - "floodgate" effect of excusing soldiers from duty 334, 336, 342, 373, 860
  - intentional self-wounding and 336
  - leaders' betrayal of their subordinates moral assumptions about fairness and 179
  - mental health professionals and 180
  - military mission and treatment of 335, 342
  - PIES approach 373, 826
  - posttraumatic stress disorder and 179
  - return to duty and 300, 316, 335, 373
  - situational pacifism and 258
  - survivor guilt and 315, 336
  - symptoms of 179
  - Walter Reed Army Institute of Research's research on the human dimensions of the Army on the development of high performance units and on resistance to combat stress breakdown 160
  - "what's right" and 179
- "Comfort Women"
  - Japanese biomedical experimentation on 489
- Commander's Handbook on the Law of Naval Operation, The* 143
- Committee of Five
  - International Committee of the Red Cross formation 741
- Committee on Medical Research
  - funding 513
  - infectious disease research 514
  - mission 513
  - policy on human experimentation 514
- Common Rule, The
  - classified research and 596
  - description 580
  - DoD's codification of 581
  - exemption from institutional review boards and 587
- Communicating MEDCAP limitations to a local population case study 815
- Communication
  - conversational analysis for patient-physician interactions 108, 119
  - information for families-Operation Just Cause (exhibit) 169
  - intrainstitutional communication 184
  - paternalistic separatism and 204
  - physician communication patterns 704
  - poor internal communications resulting in military failure (exhibit) 185
- Communitarian ethics
  - description 41
  - feminist ethics and 43
  - strengths 42
  - suffering and 42
  - weaknesses 42
- Compassion and caring character trait of physicians 14
- Compensatory justice principle
  - Lazarus Project and 845, 847
  - military medical ethics and 855
- Competency of commanders
  - requirement for 321
  - technical competence 166
- Competency of patients
  - ability of surrogate decision makers to predict what treatments their loved ones would want in the event what they could not speak for themselves 109
  - "Dax" Case 88, 96
  - determination of patient capacity to make decisions regarding medical care (figure) 85
  - euthanasia and 114
  - guardian role in surrogate decision making 88, 94, 96
  - inappropriate surrogate case study 862
  - physician-assisted suicide and 114
  - Quinlan Case 88, 94
  - referral to the courts 85
  - Saikewicz Case 88, 96
  - selection of a surrogate decision maker (figure) 86
  - Self-Determination Act of 1991 101
- Competency of subordinates
  - importance of developing 167
- Concentration camps. *See* Auschwitz; Dachau; Nazi hypothermia and hypoxia research; Nazi medical ethics; Nazis
- Concerned Philosophers for Peace
  - criticism of the military 211
- Condition of possibility and postmodern philosophy (exhibit) 40
- Confidentiality issues. *See also* Privacy issues
  - balancing the needs of the military with the needs of patients 344
  - case studies 345
  - confidentiality for homosexual soldiers in epidemiological studies 859
  - contemporary philosophers and 7
  - disclosure of medical information to commanding officers 298, 315
  - electronic medical records and 839
  - epidemiological studies and 585
  - ethics committees and 78
  - evaluating pilots who may be impaired 344
  - procedures for exchanging sensitive medical data while preserving 588
  - referring requests for medical information to military lawyers 315
  - service members' medical records 350
  - Tarasoff Case 37, 88, 94
  - using patient records in military research 588
  - violating patient confidentiality in the name of national or military security 298, 315
- Conflict resolution
  - deontology and 30
  - utilitarian theory and 28
- Conflicts of interest
  - epidemiological studies and 585
  - ethics committees and 78
- Congshan
  - Japanese pathogen tests on civilians 486

- Conroy Case 88, 98
- Conscientious objection
  - "absolute pacifists" 307
  - Army's ability to carry out its job and 259
  - Army's ability to reliably identify authentic situational pacifists 259
  - case studies 260
  - current regulations 257
  - filing for before entering the armed forces 257
  - moral pacifism 257
  - nuclear pacifists 241
  - political pacifism case study 260
  - reassignment of the soldier to a noncombatant position 259
  - situational pacifism 257, 307
- Consequentialism
  - animal experimentation and 553
  - applied medical ethics and 36
  - description 28, 33
  - principlism and 72
  - strengths 28
  - weaknesses 28
- Conservation principle
  - collective ethics 284
  - description 282
  - ecological conservation 283
  - evolution of conservation as a metaphor 283
  - execution of the physician's mission during battle and 288
  - "fighting strength" of the military and 288
  - maintenance of resources 287
  - market metaphor 283
  - military healthcare system comparison with a civilian community hospital 285
  - military metaphor 283
  - new military-political imperative and 286
  - operational conservation 282
  - planning and the minimization of waste 287
  - preservation of human resources 287
  - training of medical personnel and 286
- Constantine, Emperor
  - acceptance of Christianity 223
- Contextual grid for clinical ethics 47
- Convention for the Amelioration of the Condition of the Wounded in Armies in the Field
  - first Geneva Convention and 742
  - text 764
- Convention on the Physical Protection of Nuclear Material
  - provisions 235
- Convention on the Prohibition of the Development, Production, and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction
  - provisions 234
- Cooper, M.C.
  - nursing ethics 673
- Cooper, Merlin
  - dysentery research 514
- Cooperative Project Assurances
  - filing requirements 581
- CORDS. *See* "Civil Operations, Revolutionary Development Support" effort
- Coser, L.A.
  - "greedy institution" conflict argument 723
- Counterinsurgency programs. *See* Humanitarian assistance
- Courage
  - character trait of physicians 15
  - military professionals and 138, 142, 144
- Court cases. *See* Case studies; Legal issues; *specific cases*
- Covert and deceptive American medical experimentat
  - American popular press view of 519
  - beriberi research on Philippine prison inmates 511
  - biological warfare tests in America by the Army 526
  - Central Intelligence Agency and "mind-altering" substances 525
  - cholera vaccine research on Phillipine prison inmates 511
  - concerns about research risk and liability 514
  - consent of the subjects 513, 515
  - disclosure of biomedical research programs 509
  - drug addiction research 513
  - during the Cold War 521
  - encephalitis research 513
  - expansion of rules to protect research subjects 519
  - financial compensation to subjects and their families 525, 526
  - gas warfare agent research 513
  - human experimentation before 1940 511
  - human radiation experiments 510, 523, 568
  - infectious disease research on civilian population 514
  - Lewisite research 514
  - number of Americans who participated in medical research during World War II 515
  - Nuremberg Code and the U.S. government 521
  - Nuremberg Doctors' Trials impact 516, 519
  - plutonium experimentation on unsuspecting patients 439, 524, 528
  - postwar world and "crimes against humanity" 516
  - "Project Whitecoat" biological weapons program 527
  - research to support the American war effort 513
  - secrecy and science 528
  - The Wilson Memorandum: formalizing the use of human volunteers in Department of Defense experimental research (exhibit) 522, 568, 569
  - trust in the government and 529
  - tuberculosis vaccine testing on Colorado prisoners 513
  - Tuskegee Syphilis Study 510, 520
  - yellow fever research conducted by the military 511
- CPA. *See* Cooperative Project Assurances
- Crimean War
  - nurse's role 663
- Croatia
  - mobile army surgical hospital's instructions not treat civilians 186
- Cross-sectional studies
  - description 582
- Crouch, Rev. Archie
  - description of Japanese pathogen tests on the village of Ningbo, China 484
- Cruzan Case 88, 100
- Cuba
  - arms shipment to El Salvador 783
  - U.S. military psychiatric treatment of Haitian immigrants with mental illness 823
- Cultural considerations. *See* Religious and cultural considerations in military healthcare; *specific cultures and countries*
- "Cultural Influences on Physician Communication in Healthcare Teams" 703
- Cultural issues. *See also* Military culture
  - casuistry 45
  - definition of "culture" 159
  - ethical systems as components of culture 159
  - libertarianism 39
  - medical ethics and 17, 28, 54
  - principlism 37
- CW. *See* Chemical weapons

## D

- Dachau
  - hypothermia and hypoxia experimentation 444, 459
  - legacy of the experiments 454
- Dallaire, Gen. Romeo
  - posttraumatic stress disorder and 825
- Daniels, A.K.
  - psychiatry ethical conflict 319
- Dartmouth College
  - Medical School curricular goals for medical ethics 82
- Darwin, Charles 407
- "Dax" Case 88, 96
- De Jure Belli ac Pacis* 224
- Decision-making algorithm for military medical ethics
  - assessment of risk to the soldier 856
  - benefit to the military and 856, 859
  - clinical examples 860
  - military necessity and 856, 857
  - policy applications 857
  - simplified version for 855
- Declaration of Geneva
  - duties of the physician 301
  - medical ethics 273
  - medical ethics and 753
  - text 765
- Declaration of Helsinki
  - adoption of 572
  - international recognition of 753
  - text 768
- Declaration of Helsinki
  - ethical conduct of biomedical research and 545
- Declaration of Tokyo
  - international recognition of 753
  - text 770
- Deconstructionist intellectual influences
  - normative and applied ethics and 70
  - shift in focus of medicine toward the autonomy of 70
- Defense Technical Information Service
  - nursing research literature 680
- Defense Women's Health Research Program
  - components 555
- DeJong, C.
  - dimensions of religion 698
- Delphi panels
  - description 119
- Demonstration projects
  - implementation of 115
- Deontology
  - animal experimentation and 553, 554
  - applied medical ethics and 36
  - autonomy as a "side constraint" 30, 38
  - description 29, 33
  - legal consequences and 111
  - military role-specific ethical situations 343
  - principlism and 72
  - strengths 29
  - truth-telling case study and 30, 31, 53
  - utilitarianism comparison 30, 31
  - virtue theory comparison 32
  - weaknesses 30
- Department of Defense Authorization Act
  - informed consent and 550
- Descriptive ethics
  - anthropology and 108
  - case reports and 115
  - criteria for 116
  - demonstration projects and 115
  - description 107
  - descriptions of facts relevant to normative arguments 113
  - detached disinterest and 121
  - empirical question examples 108
  - empirical testing of normative theories 114
  - epidemiology and 109
  - ethics and opinion surveys 110
  - experimental methods 120
  - expert opinions and 111
  - fact/value distinction 110
  - forms of moral arguments 113
  - health services research and 109
  - historical facts and 111
  - illicit inferences 111
  - interdisciplinary nature of 116
  - legality and morality 111
  - majority opinions and 111
  - multimethod research 119
  - natural law theory and 112
  - normative ethics relationship 110
  - psychology and 109
  - purely descriptive studies 112
  - qualitative research 118
  - slippery slope arguments 114
  - sociology and 108
  - survey research 116
  - testing compliance with established or new norms 113
  - theoretical framework 120
  - types of studies in 108
- Desert Rock exercises
  - description 569
- Desgenettes, René-Nicolas
  - battlefield euthanasia 386
- Diagnosis of local diseases
  - case study 812
- Diagnostic and Statistical Manual of Mental Disorders*, third edition
  - posttraumatic stress disorder diagnosis and 724, 735
- Dietary practices
  - healthcare and 699
- Disaster relief. *See* Humanitarian assistance
- Discipline
  - concept of 182
  - "what's right" and 183
- Discretionary situations for physician-soldiers
  - acquiring prejudicial information while conducting medical research 351
  - balancing the needs of the military with the needs of patients 344
  - case studies 345
  - counseling and treating soldiers with eating disorders 351
  - counseling and treating suicidal soldiers 350
  - counseling soldiers with HIV who endanger third parties 348
  - evaluating homosexual soldiers who have security clearances 352
  - evaluating impaired commanders 345
  - evaluating pilots who may be impaired 344
  - meeting the clinical needs of soldiers with psychological disorders 350
  - meeting the medical needs of homosexual soldiers 353
  - prioritizing the needs of patients over the needs of the military 351
  - problems not related to military performance 347
  - reporting soldiers with minimal substance abuse problems 346
  - violating patient confidentiality 345
- Discrimination



- homosexuals 149
  - women and 148
  - Disobeying orders—the "risks" associated with the desire to help case study 820
  - Dix, Dorothea L.
    - Superintendent of the Female Nurses of the Union Army appointment 664
  - DNA analysis
    - DoD policy clarifying four possible uses of DNA 860
    - identification of soldiers' remains 855, 859
    - privacy issues 860
    - requirement of military personnel to provide samples for 860
  - Dock, Lavinia, RN
    - nurse's duty 83, 84
  - DoD. *See* U.S. Department of Defense
  - DOJ. *See* U.S. Department of Justice
  - Doolittle Commission Report
    - postwar criticism of the officer corps 188
  - Double-effect principle
    - battlefield triage and 300
    - belligerents practice of hiding combatants behind noncombatants and civilians 243
    - conditions necessary to justify an action 153
    - examples 242, 243
    - principle of discrimination and 241
  - Draper Committee Report
    - Military Assistance Program recommendations 779
  - Dreher, R.J.
    - patient triage on a MEDCAP mission 816
  - Drug addiction. *See* Substance abuse
  - DSM-III. *See* *Diagnostic and Statistical Manual of Mental Disorders*, third edition
  - Dulles, Allen
    - "mind-altering" substances research and 525
  - Dunant, Henry
    - International Committee of the Red Cross formation 741
    - red cross emblem 747
  - DVA. *See* U.S. Department of Veterans Affairs
  - DWHRP. *See* Defense Women's Health Research Program
  - Dyckerhoff, Dr.
    - review of Rascher's work 447
  - Dyer, G.
    - historical changes in the consequences of war 131
  - Dying. *See* Physician-assisted suicide; Right-to-die movement
  - Dysentery
    - research on civilian populations 514
- E**
- E. coli*
    - Japanese experimentation on infants 495
  - Eating disorders
    - counseling and treating soldiers with 351
  - Ebola virus
    - military investigators and 539
  - Education. *See also* Training
    - clinical ethics education 79, 88
    - demonstration projects and 115
    - establishment of permanent schools for advanced military education in the United States 137
    - graduate degrees from civilian schools for officer 140
    - objectives of the educational process 140
    - scholarships for medical education 324
    - senior service colleges for officers 139
    - specialized education and training for military professionals 323, 139
  - Education Development Center, Inc.
    - "Decisions Near the End of Life" bioethics education program 678
  - Effacement of self-interest character trait of physicians 14
  - Eikenberry, K.W.
    - operational conservation 282, 284
  - Eisenhower, Pres. Dwight
    - Code of Conduct for Members for the Armed Forces of the United States 144, 145
    - Draper Committee and 779
  - Eitelberg, M.J.
    - identicalism 206
  - El Salvador
    - Castro's influence in 783
    - decrease in mortality rate of wounded soldiers 794
    - El Salvadoran Armed Forces (ESAF) increase 783
    - foreign military observership program 795
    - guerilla force emphasis on small ambushes and the use of land mines 783, 785
    - military medicine in security assistance training programs 792
    - random guerilla attacks 783
    - rotation of Salvadoran medical personnel to service in U.S. Army hospitals 795
    - Security Assistance Program funding for Foreign Military Sales 783, 793
    - training of nursing and biomedical equipment maintenance personnel 793
    - trauma surgery system 793
  - El Salvadoran Armed Forces
    - approval of a small medical civic action program 794
    - change in guerilla tactics and 783, 785
    - demoralization of 792
    - inadequate number of medical facilities 792
    - increase in 783
    - increased mortality rate 792
    - lack of dedicated field medicine evacuation assets and trained medical aid men 792
    - land mine injury reduction program 794
    - preventive medicine and field sanitation programs 794
    - Professional Rehabilitation Center inauguration for the care of physically handicapped soldiers 794
    - vaccination program 794
  - Elderly persons
    - anthropological studies of societies' treatment of 112
    - ethics theories and 35
  - Ellis, A.
    - view of religion 696
  - Emergency War Surgery*
    - triage definition 380
    - triage guidelines (exhibit) 382
  - Empirical research on medical ethics. *See also* Research
    - biases in 120
    - criteria for good descriptive ethics 116
    - descriptive ethics 107
    - detached disinterest and 121
    - disciplines contributing to 107
    - empirical question examples 107
    - metaethics 107
    - military medicine 122
    - normative ethics 107, 112
    - relationship between descriptive and normative ethics 110
    - resources in ethics 121
    - theoretical framework 120
    - types of empirical inquiry 107
    - types of studies in descriptive ethics 108
  - Encephalitis
    - St. Louis encephalitis research by the United States on prisoners 513

- Encyclopedia of Bioethics* 63
- Endo Shusaku
  - novel about vivisection 468
- Engel, G.L.
  - definition of medicine in terms of its knowledge b 71
- Engelhardt, H.T., Jr.
  - philosophy as the queen of sciences 27
  - primacy of autonomy 39
  - principlism 36
  - "taken-for-granted sense of moral propriety" 867
- Entrepreneur model of the patient-physician relationship 8
- Epidemiological studies
  - access to data without subjects' consent and 584
  - case-control studies 582
  - cohort studies 583
  - communication of study results 584
  - community informed consent 845
  - confidentiality and 585, 859
  - conflicts of interest and 585
  - control groups and 586
  - cross-sectional studies 582
  - description 582
  - ethical principles applied to 583
  - ethical review procedures for 586
  - facilitating accurate epidemiological studies of HIV in the military 352
  - harms and wrongs caused by 584
  - homosexual soldiers in 859
  - individual informed consent and 583
  - random allocation and 586
  - randomized controlled trials 583
  - representation of the community and 586
  - respect for social mores and 585
  - scientific integrity and 586
  - "stopping rules" for 586
  - types 582
  - community informed consent 584
- Epidemiology
  - description 109
  - do not resuscitate (DNR) order frequency 109
- EPWs. *See* Prisoners of war
- ESAF. *See* El Salvadoran Armed Forces
- Ethics committees
  - advantages and disadvantages over a single consultant 79
  - confidentiality issues 78
  - conflicts of interest and 78
  - functions 78
  - guidelines for operation 78
- Ethics consultation
  - disagreements between lawyers and ethics consultant 862
  - goals 77
  - service responsibilities of the ethicist 77
- Ethnographic analysis
  - description 119
- Euthanasia. *See also* Physician-assisted suicide
  - a doctor's reflections (exhibit) 390
  - as a continuing medical practice 414
  - battlefield uses 122, 384
  - case studies 385, 387, 391
  - civilian example from a battlefield setting 387
  - contemporary philosophers and 7
  - destruction of "lives not worth living" 413
  - durability of the request for 393
  - economic argument for 413, 417
  - ethical analysis of options 389
  - history of battlefield euthanasia 386
  - in the Netherlands 393
  - libertarianism and 39
  - link between euthanasia and "The Final Solution" 415
  - methods of 390, 392
  - military policy *vs.* practicality 394
  - military-specific ethical analysis 393
  - Nazi Germany and 413
  - patients who are unable to participate in the decision-making process and 390
  - principle-based ethical analysis 389
  - "slippery slope" issues 393
  - Swann scenario 384, 388
  - the Netherlands and 109
  - utilitarian ethical analysis 392
  - virtue theory and 32
  - who should perform 390
- Evaluation of Humanistic Qualities in the Internist* 74
- Evans, Everett I.
  - request for classification of his research on radiation burns 528
- Existential ethics
  - external morality example 10
- Extended separatism
  - academia and 203, 211
  - business and industry and 203
  - convergence policy 202
  - costs of isolation 210
  - description 202
  - fictional officer General Separon's thoughts on 203, 209
  - flaws of 209, 214, 217
  - fusionism and 206
  - military virtues and 203
  - paternalistic separatism and 204
  - societal change and 210
  - strategies for dealing with society's institutions 202
  - technological change and 210
- External morality
  - clinical encounter and 13
  - description 10, 13
- Extreme condition model of triage
  - autonomy of the soldier and 383
  - description 383
  - military doctrine and 384
  - noncombatant casualties and 384

## F

- Fact of illness
  - patient-physician relationship and 11, 13
- Fact/value distinction 110
- Faden, Ruth
  - Advisory Committee on Human Radiation Experiments head 524
- Falklands War
  - coded weather information 750
- Families
  - as sources of anxiety for service members 168
  - caring for families and the efficiency of the unit 168
  - information for families-Operation Just Cause (exhibit) 169
- Faulkner, J.
  - dimensions of religion 698
- FDA. *See* U.S. Food and Drug Administration
- Federal Employees Health Benefits program
  - military retirees and 728
- Federalwide Assurances
  - filing requirements 581
- FEHBP. *See* Federal Employees Health Benefits Program
- Feldshuh, D.

- attitude of the researcher toward the volunteers in the Tuskegee Syphilis Study 567
- Feminist ethics
  - caring ethics and 43
  - communitarian ethics and 43
  - external morality example 10
  - forms of 43
  - strengths and weaknesses 44
  - truth-telling case study and 43, 53
- Feres Doctrine
  - description 588
- Feudal system
  - chivalry and 134
  - foot soldiers and 134
  - knightly orders 134, 135
  - loyalty and 134
- Fidelity character trait of physicians 14
- Field Manual 8-55
  - medical battlefield rules (exhibit) 374, 377
- Final Report of the Advisory Committee on Human Radiation Experiments* 568
- "Final Solution, The"
  - link between euthanasia and 415, 440, 441
  - Wannsee Protocol text 431
- Finch, Clement
  - blood preservation research 519
- Finke, [first name not provided]
  - hypothermia and hypoxia research 444
- Fischer, Eugen
  - Kaiser Wilhelm Institute for Anthropology director 410
- Fitzgerald, A.E.
  - waste and fraud in defense spending 211
- Flanagan, O.J.
  - basis of gender differences 44
- Fletcher, John C.
  - clinical ethics description 63
  - goals of ethics consultants 77
  - principlism and 693
- Fletcher, Joseph F.
  - original use of the term "clinical ethics" 63, 64
- FMS program. *See* Foreign military sales program
- Focus groups
  - group methods 119
- Following orders
  - action's effect on each human involved and 264
  - Army's position on 262, 264
  - case studies 263
  - factors to consider 264
  - immoral orders 262, 264
  - knowledge of international law and 262
  - military mission and 256
  - orders which soldiers must follow 261
  - overall consequences of the action and 264
  - problematic cases 262
  - refusal to obey illegal orders 141, 261, 262, 263
- Ford, Loretta
  - education of nurse practitioners 667
- Ford, Pres. Gerald
  - apology to Olson's family for the CIA's research 526
  - appointment of the Rockefeller Commission to investigate clandestine testing by the CIA and Department of Defense 526
  - Executive Order on Intelligence Activities 526
  - executive order renouncing the first use of herbicides in war 234
- Foreign military sales program
  - humanitarian assistance funding 775, 793
- Former Soviet Union
  - agreements on the reduction or elimination of specified types of nuclear missiles and warheads 235
  - American Relief Administration disaster relief to 778
  - claim that AIDS was a biological war product engineered by U.S. Army scientists 733
  - Cold War role 492
  - "hotline" agreements on nuclear weapons use 234
  - interest in Japanese World War II biomedical experimentation results 492
  - involuntary testing of assassination weapons on prisoners 465
  - Japanese biomedical experimentation and 484, 486
  - "no first use" principle and 235
- Four-dimension grid for clinical ethics 50
- Fox, Renee
  - contributions to descriptive ethics 108
- France
  - Ecole Militaire Supérieure* establishment 136
  - honor concept and 170
  - notion of freedom and the *levée en masse* 136
  - regimental system introduction 135
- Freud, S.
  - view of religion 696
- Frick, Wilhelm
  - twin studies 410
- Fried, C.
  - deontology and utilitarian theory comparison 30
- Friedell, Dr. Hymer
  - plutonium research on human subjects and 524
  - recommendation for declassification of plutonium research 528
- Friedenberg, Edgar Z.
  - corruption of weakness 172
- Fromm, E.
  - "character" definition 159
- Frostbite research. *See* Japanese biomedical experimentation during the World-War-II era; Nazi hypothermia and hypoxia research
- Fry, S.T.
  - ethic of care for physicians 693
- Fukumi Hideo, Dr.
  - E. coli* experimentation on infants 495
- Fundamental Rules of International Humanitarian Law Applicable in Armed Conflicts
  - text 771
- Fushita Shigeo, Lt.
  - Japanese biomedical experimentation role 488
- Fusionism
  - academia and 208
  - benefits of 217
  - business and industry and 214
  - CNN paradox 208
  - description 206
  - distinction between product and process technologies 208
  - fictional General Futon's thought on 209, 214
  - flaws of 214, 215, 217
  - honest speaker being taken advantage of by more manipulative linguistic partners 217
  - identicalism and 205, 206, 209
  - liberal democratic tradition and 217
  - mass media and 208, 214
  - medicine analogy 207
  - military secrets and 207
  - modern military activity and 207
  - naiveté of 214, 217
  - openness and 207, 209, 214
  - paternalistic separatism and 207

- separatism and 206
- Futagi Hideo
  - postwar activities 494
- Futile treatments
  - beneficence-in-trust and 41
  - patient-physician relationship and 16
- Future issues affecting individuals
  - a case study in logistics (exhibit) 837
  - Lazarus Project 844
  - pharmacological optimization for the battlefield 840
  - societal obligation to protect soldiers as much as possible 836
  - telemedicine/telepresence surgery 838
- Future issues affecting policy
  - "bloodless war" 835
  - nonlethal weapons 833
- FWAs. *See* Federalwide Assurances

## G

- Gallop, R.
  - nursing ethics 673
- Gallup survey
  - Americans' religious beliefs 695
- GAO. *See* U.S. General Accounting Office
- Garritson, S.H.
  - beneficence principle 673
- Gebhardt, Dr.
  - review of Rascher's work 447
- Gelvin, M.
  - justification for the suffering of a battlefield 132
- Gender issues. *See also* Men; Women
  - gender bias in selecting research subjects 556, 558
  - human volunteers in military biomedical research 579
  - military care issues related to military spouses and children 728
  - societal influences and the ethics of military healthcare and 725
- General inspections
  - military culture and 181
- General Social Survey
  - religious activity and life satisfaction 697
- Genetic Health Courts 410
- Geneva Conventions. *See also* Protocols I and II
  - as an international law of war 143, 154
  - banning of weapons that cause indiscriminate and unnecessary suffering 833
  - belligerent occupation provisions 237
  - caring for the wounded and sick 754
  - Convention for the Amelioration of the Condition of the Wounded in Armies in the Field 742
  - conventions currently in effect 743
  - conventions included 301
  - definition of medical personnel 744
  - definition of wounded and sick 743
  - Dunant's role 741
  - humanitarian assistance and 801, 807
  - irregular combatants and 743
  - Law of Land Warfare and 301
  - leaving the wounded and sick behind 756
  - locating and collecting the wounded and sick 754
  - medical ethics and 752
  - medical records and 755
  - medical units, medical transports, and their identification 747
  - nondiscrimination principle 755
  - occupying force obligations 757
  - physical mutilation prohibition 758
  - physician involvement in developing nonlethal weapons 834
  - physician participation in interrogation of prisoners of war 394
  - prisoner of war treatment provisions 225, 236, 238, 316, 380
  - protection of the wounded and sick 237, 824
  - provision of care to enemy soldiers 302
  - provision of wartime healthcare 702
  - purposes of 743
  - resistance movements and 238
  - Resolutions of the Geneva International Conference, October 1863 763
  - responsibilities of medical personnel 754
  - retention of medical personnel 746
  - revisions to 742
  - rights of captured medical personnel 371, 745
  - scientific experiment prohibition 758
  - separation of the military and medical care functions 303
  - specific protections and obligations of medical personnel 301
  - surgery without consent prohibition 758
  - teaching of 301
  - torture prohibition 757
  - transplantation of tissue of organs prohibition 758
- Geneva Gas Protocol
  - prohibitions against the use of chemical or biological agents 225, 234
  - United States ratification of 234
- Geneva Protocol Relating to the Victims of International Armed Conflict
  - belligerent status and 231
- Genocide program
  - link between euthanasia and 415
  - Wannsee Protocol text 431
- Georgetown Case 88
- German Medical Association
  - Der Erbarzt* journal 410
  - "Solving the Jewish Question" column 415
- Germany. *See also* Nazi hypothermia and hypoxia research; Nazi medical ethics; Nazis
  - atrocities during the invasion of Russia 172, 174
  - establishment of the *Kriegsakademie* 136
  - history of German medicine in the 1920s and 1930s 405
  - Kriegsraison* doctrine 231
  - officer corps development 136
  - Ophelia* hospital ship capture 750
  - politicization of German medicine 405
  - timeline of political and medical events in Germany, 1918-1945 422
  - U.S. postwar policies in 230
  - universal conscription concept 136
  - values requiring soldiers to behave in ways Americans perceive to be atrocious 178
  - war-guilt clause of the Versailles Treaty 224
  - Wehrmacht* and truth in reporting 163, 164
  - World War I hunger blockade of 241
- Gert, B.
  - principlism criticism 36, 38
- Ghetto hospital, the
  - case study 387
- Gilligan, Carol
  - care/justice tension in nursing ethics 673
  - criticism of Kohlberg's schema of moral development 109
  - patterns of moral reasoning research 44
- Gillon, R.
  - principlism 37
- Glanders
  - Japanese biomedical experimentation on 478, 483
  - postwar epidemics of 487
- Glaser, J.W.



- unidimensional grid for clinical ethics 48
  - Glasgow, Scotland
    - religious activity and illness survey 697
  - Gonorrhea
    - human experimentation 515
  - "Good intentions" left in the latrine
    - case study 813
  - Goodrich, Annie W.
    - appointment as Chief Inspector Nurse of the Army 665
  - Goring, Hermann
    - hypothermia and hypoxia research and 441
  - Gorman, Gen. Paul F.
    - agenda in Honduras 786
    - Central American humanitarian assistance program role 785
    - initiative in attaching a military hospital that provided care to Hondurans 788
    - initiative to use medical assets in SOUTHCOM to also care for Honduran soldiers and civilians 791
  - Gottlieb, Sidney
    - CIA "mind-altering" substances research and 526
  - Gould, Jay
    - ethics and science relationship 452
  - Graber, G.C.
    - types of ethical judgements 27
    - unitary theory of medical ethics 47
  - Grawitz, Ernst
    - experiments with pathogens to test homeopathic preparations 416
  - Gray, J.G.
    - appeals of war 278
  - Greece
    - selection and training of torturers 396
  - Green Cross blood supply scandal 494, 495
  - Grid models for clinical ethics
    - Glaser's unidimensional grid 48
    - Siegler's four-dimension grid 50
    - Thomasma's contextual grid 47
  - Grodin, Michael
    - Nuremberg Doctors' Trial comments 516, 519
  - Grotius, Hugo
    - war-conduct law and 224
  - Grundstein-Amando, R.
    - nursing ethics 673
  - Guatemala
    - insurgency in 785
  - "Guidelines for Implementing the Code for Nurses" 667
  - "Guidelines on Reporting Incompetent, Unethical or Illegal Practice 681
  - Guillotine, Andre
    - painless execution law 395
  - Gustafson, J.M.
    - criticism of principlism 38
  - Guttentag, Otto
    - protection of research subjects and 519
- H**
- Hackett, Gen. J.W.
    - feudal knights' social position 134
    - mercenary soldiers 135
  - Hague Conventions
    - as an international law of war 138
    - basis for contemporary law of land warfare 225
    - belligerent occupation provisions 237
    - chemical weapons prohibition 233
    - cluster bomb units and 233
    - definition of wounded and sick 743
  - "dumdum" bullets and 232
  - minimization of "superfluous suffering" 232
  - protection of prisoners of war 236
  - protection of the wounded and sick 237
  - Haiti
    - military dominance of government 138
    - U.S. military psychiatric treatment of Haitian immigrants with mental illness 823
    - voodoo belief system 701, 702
  - Hallucinogens
    - human experiments on the effects of 526, 545, 548, 570
  - Hamaguchi Osachi, Prime Minister (Japan)
    - assassination of 473
  - Hamilton, Dr. Joseph
    - plutonium research 525
  - Hamman, Louis
    - ethics as intrinsic to the practice of medicine 68
  - Hantaan virus
    - military investigators and 539
  - Hareyama Yoshio
    - Japanese biomedical experimentation role 481
  - Haritos-Fatouros, Mika
    - torturer selection process in Greece 396
  - Harkness, Jon
    - history of blood substitute research 515
  - Harm principle of autonomy
    - All Volunteer Force of the Army and 256
    - Army's mandate and 256
    - borrowing from others example 254
    - boxing example 253
    - description 253, 255
    - military mission and 256
    - rollerblading example 254
  - Hasson, Esther V.
    - Navy nurse responsibilities 665
  - Hastings Center
    - "Decisions Near the End of Life" bioethics education 678
  - Hays, Isaac
    - AMA's ethics code 66
  - Health Insurance Portability and Accountability Act
    - patient record confidentiality and 589, 839
  - Health services research
    - contributions to descriptive ethics 109
  - Healthcare professionals. *See also* Nurses; Physician-soldiers; Physicians
    - resentment of the intrusion of philosophers 72
  - Heaton, Surgeon Gen. Leonard D.
    - medical civic action programs 782
  - Hefelmann, Hans
    - doctors and the euthanasia program 419
    - exportation of Jews to Madagascar 415
  - Hellegers, Andre
    - Kennedy Institute of Ethics and 73
  - Hemorrhagic fever with renal syndrome
    - military investigators and 539
  - Hendin, Dr. Herbert
    - euthanasia in the Netherlands 114
  - Henle, Werner
    - influenza vaccine research 514
  - Hermeneutical clinical ethics
    - description 46
  - Herrington, S.A.
    - cultural empathy lack in U.S. nation-building efforts 781
  - Hersch, Seymour
    - Persian Gulf War article 455
  - Heydrich, Reinhard
    - Wannsee Protocol meeting chair 431

- Hezbollah
  - example of strong community raising persons considered reprehensible by others 31
- HFRS. *See* Hemorrhagic fever with renal syndrome
- HHS. *See* U.S Department of Health and Human Services
- Higashikui Naruhiko, Prince (Japan)
  - biomedical experimentation role 469
- High-altitude experiments. *See* Japanese biomedical experimentation during the World-War-II era; Nazi hypothermia and hypoxia research
- Himmler, Heinrich
  - hypothermia and hypoxia research and 441, 459
- Hindu religion
  - religious symbols 699
- HIPAA. *See* Health Insurance Portability and Accountability Act
- Hippke, Dr.
  - hypothermia and hypoxia research 442, 443
- Hippocrates
  - epilepsy description 274
  - request from Artaxerxes II, King of Persia, to provide care for Persian soldiers 302
- Hippocratic Oath
  - bioethics challenge to 7
  - duty to the physician to his patient 284
  - ethical code example 11
  - ethical principles central to 273
  - euthanasia and 391, 393
  - formal philosophical reflection on 7
  - Hippocratic Corpus 5
  - Japanese doctors and 474
  - origination of 5
  - paternalism and 273
  - physician as helper and healer model of the patient-physician relationship 9
  - physicians' development of nonlethal weapons and 834
  - postmodernism challenge to 7
  - precepts 64
  - professional philosophers' challenge to 6
  - sociopolitical upheaval of the 1960s and 5
  - text of 6
  - virtue theory and 43
  - Western medicine and 65
- Hirano Einosuke, Capt.
  - Japanese biomedical experimentation role 488, 490
- Hirohito, Emperor (Japan)
  - commendation to biological warfare units 486
  - exploitation of his status as a symbol of the nation by militarists 471, 474
  - Imperial decree creating the Anti-Epizootic Protection of Horses Unit 480
  - Imperial decree establishing the Boeki Kyusui Bu, the Anti-Epidemic Water Supply and Purification Bureau 478
  - role in biomedical experimentation 468
- Hirt, Dr. August
  - review of Rasher's work 447
- Historical background
  - America's religious traditions 691
  - Central America in the late 1970s and early 1980s 783, 785
  - clinical ethics 64
  - early nursing ethics 663
  - Geneva Conventions 741
  - German medicine in the 1920s and 1930s 405
  - historic relation of just war doctrine and the international law of war 223
  - human volunteers in military biomedical research 568
  - humanitarian assistance 777, 798
  - International Committee of the Red Cross emblems 747
  - justice principle 37
  - medical ethics 5
  - medical transportation 70
  - medicine and religion 696
  - military professionals 131
  - physician-soldiers 271
  - prohibition against poisoning water supplies 223
- Hitler, Adolf. *See* Nazi medical ethics; Nazis
- HIV. *See* Human immunodeficiency virus
- HMOs. *See* Managed care
- Hoiberg, A.
  - risk of ill health among female military personnel 726
- Holistic health paradigms 702
- Holmes, R.L.
  - criticism of principlism 38
- Holy days 699
- Holzloehner, Prof.
  - hypothermia and hypoxia research 443, 459
- Homosexuality
  - AIDS and associated healthcare costs 151
  - American fundamental social values and 151
  - as a basis for discharge 150, 352, 355, 859
  - as a threat to the general military population 151
  - behavioral components 731
  - commander's request to review patients' charts to gain information about 335
  - confidentiality for soldiers in epidemiological studies 859
  - courts' view of the special status of the military and 150
  - defense for exclusionary practices 191
  - discrete homosexuals 191
  - "don't ask, don't tell" policy 149, 731, 732
  - impact of HIV/AIDS 731
  - increased tolerance for 729
  - integration of African-Americans and acceptance of women and acceptance of in the military 729, 731, 736
  - meeting the medical needs of homosexual soldiers 353
  - military culture and 191
  - security clearances and 352
  - social controversy over 150
  - societal views of 729
  - unit cohesion and 151, 352
  - warnings from physicians about self-incriminating information 354
  - writing euphemisms on medical charts and 350
- Honduras
  - development of medical civic action activities as part of medical exercises for deployed U.S. medical personnel 783
  - humanitarian assistance mission 785, 796, 816
  - Joint Task Force-Bravo MEDCAP mission 816
  - joint training exercises 786
  - Medical Readiness Training Exercise services 788
  - Military Assistance Program and 792
  - nation building activities 785
  - overproduction of physicians 797
  - president's fear of the spread of HIV/AIDS by U.S. 786
  - reasons why the United States should deploy troops to 785
  - SOUTHCOM model for military medicine in civic action programs 791
  - U.S. military medical units in (exhibit) 786
  - vaccination program 796
- Honig, C.R.
  - standard for scientific inquiry 452
- Honor
  - care of subordinates component 165
  - command climate that fosters security and 172
  - definition of the concept 160
  - integrity component 160

- is the unit the team, or is the officer corps the team? (exhibit) 171
  - loyalty and 172
  - perversions of honor 170
- Hood, C.H.
  - criteria for planning, executing, and evaluating medical civic action programs 815
- Hooker, Washington
  - therapeutic privilege and 66
- Hopkins Case 88, 93
- Hopkins, J.E.T.
  - returning sick soldiers to duty 339
- Hospital ships
  - conversion of merchant ships to 751
  - Geneva Conventions and 750
  - humanitarian assistance and 821
  - size of 750
- Howland, Dr. Joseph
  - plutonium research on human subjects and 524
- Huet-Vaughn, Capt. Yolanda
  - situational pacifism case study 260, 307, 312, 318
- Human experimentation. *See also* Animal experimentation;
  - Human volunteers in military biomedical research; Research conducting appropriate research (exhibit) 453
  - covert and deceptive American medical experimentation 509
  - Geneva Conventions and 758
  - government support and researcher responsibility 439
  - Japanese biomedical experimentation during the World-War-II era 450, 465
  - national interest as a rationale for 439
  - Nazi hypothermia and hypoxia research 439
  - Nazi medical experiments on human subjects 415, 439
  - Nazi racial hygiene movement and 410
  - uncovering the process in Germany 441
  - unethical experiments 439
  - United States plutonium research 439, 524
  - use of soldiers as research subjects 538, 547, 551
- Human immunodeficiency virus. *See also* Acquired immunodeficiency syndrome
  - facilitating accurate epidemiological studies in the military 352
- Honduran president's fear of the spread of HIV / AIDS by U.S. troops 786
- impact of within the military 731
- military policy on reporting 348
- military policy regarding 732
- military research program 536
- protecting identified third party 348
- protecting unidentified third parties 349
- protection of people in foreign countries from HIV / AIDS
  - infection by service persons 732
- reporting requirements 353
- treatment progress 731
- Human radiation experiments
  - documentation of 510
  - ethical problems 568
  - informed consent and 548
  - openness policy about 523
  - overcoming the fear of radiation and 569
  - plutonium research 439, 524, 528
  - radioactive isotopes to tag molecules for the study of iron metabolism 525
- "Human Rights Guidelines for Nurses in Clinical and Other Research" 679
- Human system technology research 537
- Human volunteers in military biomedical research
  - assurance filing 581
  - attitude of the researcher toward the volunteer 567
  - the *Belmont Report* and 572
  - civilians who are not government employees 596
  - classified research 595
  - Common Rule 580
  - deception in 595
  - development of the Natick, MA, climatic research program 570
  - disagreement between the commander and the IRB and 593
  - electronic data 597
  - epidemiological study considerations 582
  - ethical guidelines governing 572
  - ethical problem situations 567
  - example of a program 597
  - fear of war and 594
  - Feres Doctrine and 588
  - food preference research 590, 595
  - foreign participants and 591
  - fundamental rules for research 566
  - gender issues 579
  - historical background 568
  - human radiation experiments 568
  - "I-thou" relationship and 567
  - incentives to participate 592, 596
  - investigator responsibilities 591
  - military rank issues 589
  - military regulations pertaining to 587
  - officers and enlisted personnel mixture 579
  - patient record confidentiality 588
  - pressure on investigators and 567
  - pressure to participate and 590
  - racial issues 579
  - rapid deployment to areas with extreme heat, cold, or altitude and 593
  - research and therapy comparison 565
  - "research" definition 565
  - research team member participation 592
  - research *vs.* public health practice: when does a study require IRB review? (exhibit) 574
  - research with no direct benefit for the test subject 592
  - risk and reward perception 594
  - scientific reviews 587
  - special compensation programs 596
  - special ethical problems 589
  - special features of military regulations 587
  - stress pay 596
  - use of data obtained without consent 581
  - "volunteer" definition 567, 591
  - vulnerable populations and 577, 587, 591
- Humanitarian assistance
  - after World War II 778
  - aftermath of the Vietnam War and 782
  - aspects of providing civilian medical care during contingency operations 818
  - beginning of military civic action doctrine 779
  - beginnings of (1900-1945) 777
  - benefit of military medical forces providing 807
  - benefits of for host countries 796
  - caregiver care 825
  - case studies 810, 813, 815, 817, 818, 819, 820, 821, 822, 824
  - changing concept of nation building (1975-2000) 782
  - chronic diseases and 822
  - Code of Conduct for the International Red Cross and Red Crescent Movement and NGOs in disaster relief (exhibit) 820
  - concept of counterinsurgency 779
  - conflict-related contingency operations 808, 818

- constraints on the ability to provide quality diagnostics and medical care 814
- controversies over 775
- coordination with host governments and 815
- criticism of 775
- cultural sensitivity and 817, 824
- dearth of international law, policy guidance, and doctrine for 807
- equipment and staffing problems associated with treating civilians and children 817
- establishment of mission priorities and their implementation 822
- establishment of quality peacetime engagement programs 815
- "expendable supplies" and 797
- formalization of DoD's role in 788
- healthcare for civilians used to legitimize military operations 809
- historical background 777, 798
- hospital ship deployment 821
- identifying potential problems early 816
- impact of in Central America 796
- impact on the local population 817
- implementation of civic action programs in Southeast Asia and Vietnam 780
- inability to provide long-term assistance 814
- inadequate implementation of 797
- included programs 775
- inclusion of host-nation healthcare professionals 801
- joint training exercises with the host country 781, 786
- language difficulties and 812
- legal and moral basis for 766
- lessons learned from 816
- limited coordination with other caregivers 798
- local customs and capabilities and 815
- long-term care concerns 822
- low-intensity conflict doctrine and 783
- medical mobile training teams 775
- medical resources allocation and 820
- "Medical Rules of Engagement" and 819, 826
- medication compliance 813
- medication swapping 813
- meeting emergent needs in disaster relief operations 816
- military medicine in security assistance training programs in El Salvador 792
- misidentifying a training exercise as a "civic action" project 798
- misunderstanding of the concept of 797
- nation building in Central America 783
- nation/building/counterinsurgency programs (1945-1975) 778
- necessary actions for a successful medical humanitarian project (exhibit) 814
- need for planning to anticipate the potential problems accompanying 828
- negative outcomes as a result of the host country's unrealistic expectations 801
- nongovernmental agencies and 800, 801
- patient-physician relationship and 812
- peacekeeping operations by U.S. military forces and 776
- peacetime engagement projects and disaster relief operations 808, 810
- peacetime projects as a means of introducing a foreign nation to the U.S. military 810
- pitfalls of peacetime engagement projects 810
- pitfalls of peacetime engagement projects (exhibit) 810
- planned provision of care and 810
- political pressure within the United States for 809
- preparing military medical personnel for 826
- present and future of nation building (2001) 798
- principles governing 776
- problems associated with 797
- problems with donations of medical goods 818
- project coordination and accountability 795
- psychiatric disorders and 823
- quality of care concerns 815
- reasons for U.S. military involvement in 808
- reentering "normal" society and 827
- respect for American medicine and 800
- security issues in conflict-related contingency op 824
- Special Forces role 780, 782, 788, 798
- support for civilian government and 777
- term "civic action" to replace "medical readiness training exercises" 792
- training benefits to the U.S. military medical forces 810, 814
- training programs 781
- types of military medical operations (exhibit) 807
- types of U.S. military humanitarian missions 807
- U.S. military as the cause of civilian injury 823
- unrealistic patient expectations 813, 821
- Western-trained military physicians' lack of training in medical and public health issues in underdeveloped countries 817
- Hume, David
  - fact/value distinction 110, 111
- Humility character trait of physicians 15
- Humphrey, D.
  - right-to-die movement and 40
- Huntington, S.P.
  - development of the officer ranks 136
  - identicalism 205
  - need for the professional military to serve the state 138
  - profession and vocation comparison 272
  - roles for the professional soldier 277, 289
  - separatism 202
- Hutcheson, Francis
  - benevolent deception in medicine 65
- Hypothermia. *See also* Japanese biomedical experimentation during the World-War-II era; Nazi hypothermia and hypoxia research
  - Lazarus Project and 845
- Hypoxia research. *See* Japanese biomedical experimentation during the World-War-II era; Nazi hypothermia and hypoxia research

## I

- ICBMs. *See* Inter-Continental Ballistic Missiles
- ICN. *See* International Council of Nurses
- "ICN Code of Ethics for Nurses" 668
- ICRC. *See* International Committee of the Red Cross
- Identicalism
  - aim of 205
  - description 205
  - ease of recruitment of qualified personnel and 206
  - emergence of a new conservatism and 205
  - fictional General Iden's thoughts on 206, 212
  - flaws of 212, 215, 217
  - fusionism and 205, 209
  - increased interaction between the military and the rest of society and 206
  - making military personnel no different from those in other jobs 206
  - military personnel performing civilian-like work in military settings and 213



- unavoidability of isolation 213
- wearing of uniforms and 206, 213
- Ienaga Saburo, Prof.
  - publication of the history of Japanese medical experiments 496
- Immorality of war. *See* Conscientious objection
- Immunizations
  - as a civilian health practice 315
  - imposition of 298, 314, 315, 337
  - required administration of the anthrax vaccine to troops 299, 314, 337
- Inappropriate surrogate
  - case study 862
- India
  - Non-Proliferation Treaty and 235
- Indian Code
  - ethical code example 11
- Infectious diseases. *See also specific diseases*
  - Committee on Medical Research funding for research on 514
  - military disease hazards research 536
- Influenza
  - vaccine research on civilian populations 514
- Informed consent
  - basic element in the consent process 546
  - chemical weapons experiments and 297, 314
  - civilian research volunteers 597
  - community informed consent 584, 845
  - compassionate use of new treatments and 314
  - definition of 595
  - distinction between research and practice and 550
  - documents in the evolution of 361
  - elements of (exhibit) 578
  - epidemiological studies and 583
  - good of the patient and 13
  - human radiation experiments and 548
  - investigational drugs and vaccines and 297, 313, 538, 549, 573
  - Leah case study 689
  - lysergic acid diethylamide research and 548, 570
  - military biomedical research and 546
  - Natick, MA, climatic research program and 570, 599
  - nuclear weapons tests and 297
  - Nuremberg Code and 297, 352, 548
  - performing medical research on soldiers and 297
  - practice point of view 550
  - Presidential Commission on Radiation Experimentation
    - surveys on 122
  - President's Commission study of informed consent in clinical practice 109
  - research involving deception and 595
  - research on patient perceptions of 109
  - research point of view 540
  - return to duty considerations 374, 376
  - subjects of United States human experimentation 513, 515, 520, 524, 527
  - subjects who lack the capacity to give consent for emergency treatments 297
  - untested treatments and 314
  - use of data obtained without consent 581
  - vaccine trials in Africa 108
  - "voluntary" nature of military service and 314
  - voluntary participation by soldiers in research and 547
- Institute of Medicine
  - anthrax vaccination study 858
  - anthrax vaccine analysis 300
  - military biomedical research program reviews and development 558
  - report on the casual relationship between exposure to mustard gas and Lewisite and the development of certain types of cancer 514
- Institute of Society, Ethics, and the Life Science
  - foundation of 73
- Institutional review boards
  - advertisements used to recruit civilians 597
  - classified research and 595
  - disagreement between the commander and the IRB 593
  - epidemiological studies and 583, 584, 585
  - equipment testing and 587
  - exemptions 587
  - expedited reviews 587
  - foreign participants and 591
  - human experimentation subject protection and 521, 538
  - military biomedical research and 587
  - new bleeding prevention substances and 844
  - pyridostigmine bromide research and 573
  - questionnaires and 587
  - research involving deception 595
  - research *vs.* public health practice: when does a study require IRB review? (exhibit) 574
  - scientific reviews 587
- Institutional Review Boards: A System in Jeopardy* 521
- Integrity
  - as an operationally essential value in a military 165
  - cohesian and 163
  - definition of the concept 160
  - digitized information and 164
  - duty and 161
  - honesty and 160
  - institutional self-examination and 163
  - military operations and 161
  - military professionals and 144
  - strength of the military institution and 160
- Intellectual honesty character trait of physicians 15
- Inter-Continental Ballistic Missiles
  - agreements on the reduction or elimination of 235
- Internal morality
  - act of healing, helping, and curing 12
  - act of pro-fession and implicit promise of the physician 12, 13
  - clinical encounter 13
  - definition 11, 13
  - elements of 11
  - ends of medicine 12
  - fact of illness 11, 13
  - good of the patient concept 12, 18
  - internal codes 11, 18
  - patient as a human being 12
  - quality of life and 12
  - spirituality of the patient 12
- International Code of Medical Ethics 753, 766
- International Committee of Military Medicine and Pharmacy
  - adoption of rules concerning war and armed conflict 753
- International Committee of the Red Cross
  - abuses of the emblem 749
  - adoption of rules concerning war and armed conflict 753
  - Central Tracing Agency establishment to reestablish contact between victims of war and their families 756
  - cluster bomb units and 233
  - Code of Conduct 819
  - emblem as a target for attack 824
  - emblems for 747
  - formation of 741
  - Fundamental Rules of International Humanitarian Law
    - Applicable in Armed Conflicts 771
  - indicative uses of the emblem 748

inspection of medical records 755  
 napalm treaty 233  
 nondiscrimination principle 755  
 peacetime use of the emblem 748  
 prisoners of war and 236  
 protective uses of the emblems 747  
 red crescent emblem 747  
 red cross emblem 747  
 red lion and sun emblem 747  
 Red Shield of David emblem 747  
 wartime use of the emblem 748  
 International Council of Nurses  
   code of ethics 666, 668, 671  
 International Court of Justice  
   use of threat of use of nuclear weapons as contrary to  
     international law except under extraordinary circumstances  
       307  
 International Ethical Guidelines for Biomedical Research  
   Involving Human Subjects  
     text of 630  
 International guidance on humanitarian care  
   attachments 763  
 International law of war  
   application of war-decision law 246  
   Geneva Conventions and 143, 154  
   Hague Conventions and 143  
   historic relation of just war doctrine and 223  
   knowledge of and following orders 262  
   nomenclature of (exhibit) 226  
   rules of engagement and 246  
   sanctions for violations of 238  
 International Military Tribunal of the Far East  
   prosecution of Japanese war criminals 490  
 Internet  
   listing of pertinent resources for bioethics research 121  
 Interpersonal psychological interventions  
   description 843  
 Institutional Review Boards: A System in Jeopardy 521  
 Inukai Tsuyoshi, Premier (Japan)  
   assassination of 473  
 Investigational drugs and vaccines  
   informed consent for 297, 313, 538, 549, 573  
 IOM. *See* Institute of Medicine  
 Ionizing radiation research. *See* Human radiation experiments  
 Iran  
   Non-Proliferation Treaty and 235  
   "rogue" state status 245  
   seizure of U.S. Embassy and staff in Tehran 782  
 Iran-Contra scandal  
   separatism and 215  
 Iraq. *See also* Persian Gulf War  
   invasion of Kuwait 229  
   Non-Proliferation Treaty and 235  
   nonmilitary sanctions against 229, 306  
   offensive biological and chemical weapons 543, 544  
   "rogue" state status 245  
   use of chemical weapons 234, 313, 337  
 IRBs. *See* Institutional review boards  
 Irwin, Bernard J.D.  
   combatant role 303  
 Ishibashi Naokata  
   Japanese biomedical experimentation role 489  
 Ishii Shiro, Dr.  
   commendation from Emperor Hirohito 486  
   immunity from prosecution for medical experimentation on  
     human subjects 490, 492  
   role in Japanese biomedical experimentation 475, 482

Islam  
   dietary practices 699  
   influence on clinical ethics 64  
   just war doctrine 224  
   moral education view 708  
   prayer 698  
   principles of medical ethics 709  
   *Quran* teachings 709, 710  
   Ramadan observance 699  
   *Shari'a* system 708  
   view of wellness and illness 708  
 Israel  
   belligerent status and 231  
   Israeli Defence Forces and truth in reporting 163  
   Non-Proliferation Treaty and 235  
   physician involvement in torture of prisoners of war 395  
 Italy  
   mercenary soldiers and 135  
 Ivy, Andrew C.  
   testimony on the issue of voluntary participation in human  
     experimentation 516, 517  
   validity of the Dachau data 449  
 Iwanami Hiroshi, Capt.  
   Japanese biomedical experimentation role 489

## J

Jackson, Stephen  
   Nuremberg Code recommendations 521  
 Janousek, J.T.  
   ethical dilemmas of triage 297  
 Janowitz, M.  
   civilian control of the military 207  
   elements the American military inherited from the British  
     military tradition 137  
   professional soldier description 137  
   value of initiative in battle 147  
 Jansenism  
   religious tradition of 691  
 Japan  
   absence of courses on medical ethics in medical schools 474  
   assassination of suspected unsympathetic officials by the  
     military 473  
   Bataan Death March 172, 174, 175  
   belief of the Japanese people that Japan was a victim rather  
     than an aggressor in World War II 491  
   brutalization of soldiers 475  
   *Bushido* warrior code 470, 471  
   cultural isolation of 470  
   Green Cross blood supply scandal 494, 495  
   in the 21st century 496  
   inclusion in history textbooks of an account of Japan's  
     biomedical and chemical warfare programs 496  
   influence of militarism on military medicine 474  
   Japanese medical school and the United States medical school  
     comparison 474  
   Japanese National Institute of Health 494  
   military's lack of interest in humanitarian or human rights  
     concepts after 475  
   Mukden rebellion 473  
   number of prisoners of war captured after Pearl Harbor 487  
   prosecution of war criminals 490  
   racial superiority belief 470  
   secret military societies 472  
   "The Greater East Asia Co-Prosperity Sphere" euphemism 473  
   U.S. bombing of Hiroshima and Nagasaki 235, 239  
   U.S. postwar policies in 230

- ultranationalist fanaticism withing the Japanese military (exhibit) 473
- use of racism to justify imperial adventures in East and Southeast Asia 471
- victories after Pearl Harbor 487
- Japanese biomedical experimentation during the World-War-II era
  - academic community's postwar attempts to minimize 491
  - agricultural experiments 480
  - annual expenditures for 468
  - as a feature of Japanese military planning 467
  - biological warfare laboratory experiments 482
  - biological warfare research operations throughout the Japanese empire (exhibit) 477
  - biomedical experimentation and the Royal family (exhibit) 469
  - Boeki Kyusui Bu, the Anti-Epidemic Water Supply an 478
  - Bushido* warrior code and 470, 471
  - civilian government role 470
  - contamination of foods with pathogens 487
  - contamination of wells with pathogens 487
  - delivery systems for pathogens 483
  - dimensions of the problem 466
  - diseases investigated 480
  - estimated number of prisoners killed in experiment 484
  - field test of biological warfare 484
  - field tests of biological warfare 486
  - free-lance medical procedures and experiments on prisoners of war 478
  - free-lance vivisection description (exhibit) 469
  - frostbite research 480, 484
  - funding and staffing for 478
  - government-sponsored biomedical research 489
  - government-sponsored human vivisection (exhibit) 475, 489
  - historical context 470
  - immunity from prosecution of war criminals 490
  - Imperial decree establishing the *Boeki Kyusui Bu*, the Anti-Epidemic Water Supply and Purification Bureau 478
  - Japanese casualties resulting from 486
  - Japanese military involvement 467
  - lack of accountability of doctors 465
  - malaria research on prisoners 488
  - map showing locations of Japanese biomedical experimentation sites (figure) 482
  - description of subjects as *marutas*, or logs 480
  - medical and academic profession involvement 466
  - nationalistic racism and 470
  - Nazi experiments comparison 484
  - nutrition research on how little food humans require to stay alive 488, 490
  - objectives of 483
  - origin of the programs 475
  - pathogen effects research 483
  - pathogen production objective 483
  - photographs from Ping Fan Museum 503
  - plague and anthrax experiments 450
  - postwar epidemics due to infected animals released by the Japanese from their research facilities at the end of the war 487
  - postwar failure to apologize for 491
  - postwar medical careers of biowarfare personnel 493
  - postwar view of Japanese war crimes 491
  - professional involvement in (exhibit) 467
  - public knowledge of 509
  - Royal family role 468
  - "sacrificing" of subjects 478
  - "sanitization" of by the Japanese government and American Occupation officials 465, 491
  - "The Report of 'A'" 492
  - "The Togo Unit" 478
  - types of experiments 478
  - ultranationalism in the military and 472
  - Unit 731, the Ishii Unit 478, 484
  - United States interest in Japanese research results 492
  - use of prisoners for teaching surgery to medical students 488
  - vivisection and immediate postmortem dissection 490
- Japanese National Institute of Health
  - cooperation with the Atomic Bomb Casualty Commission in recording the progress of the Hiroshima survivors 495
  - experimentation with *Rickettsia tsutsugam shi* on mental patients 495
  - foundation of 494
  - human experimentation 495
  - official research agenda 495
  - role in the hold up of vaccine distribution 495
  - use of untested vaccines 495
- Jarisch, Dr.
  - hypothermia and hypoxia research 443
- Javits, Sen. Jacob
  - human experimentation subject protection and 521
- JCAHO. *See* Joint Commission on Accreditation of Healthcare Organizations
- Jehovah's Witnesses
  - blood transfusions and 710, 711
- JNIH. *See* Japanese National Institute of Health
- Joffe, Gen. Joseph
  - perversion of honor example 170
- Johns Hopkins School of Nursing
  - ethics courses 664
- Johns Hopkins University
  - asthma trial 592
- Johnson, Pres. Lyndon
  - authorization of the CORDS program 782
  - "Great Society" program 69
- Johnson, W.H.
  - protection of research subjects and 519
- Joint Commission on Accreditation of Healthcare Organizations
  - military hospital compliance with 702
  - requirement for written policies and procedures concerning human values issues 74
- Jonas, Han
  - ethics and scientific research 455
- Jones, F.D.
  - combat fatigue and return to duty 336
  - combat stress treatment 826
- Jonsen, A.R.
  - American moralism 693
  - casuistry as principlism's chief opponent 693
  - casuistry definition 63
  - clinical ethics definition 63
  - four-dimension grid for clinical ethics and 51
  - moral pluralism 46
- Joseph, Dr. Stephen
  - public expectations of medical care for wounded U.S. soldiers 836
- Journal of the American Institute of Homeopathy*
  - forcible euthanasia merits 413
- Journal of the American Psychiatric Association*
  - euthanasia for retarded children 413
- Journals
  - for bioethics 121
  - for clinical ethicists 74
- Judaism
  - casuistry 45
  - dietary practices 699, 700

- Halakic tradition 10, 706, 708
- influence on clinical ethics 64
- patient autonomy and 689
- principles of Jewish medical ethics 707
- religious garments 699
- religious symbols 699
- Sabbath observance 699
- Talmudic instructions on illness and healing 707
- view of life and illness 706
- Judgement at Nuremberg
  - defendants, verdicts, and punishments 435
- Junkerman, C.
  - clinical ethics rules 47
- Jus ad bellum. See* War-decision law
- Jus in bello. See* War-conduct law
- Just and Unjust Wars* 242
- Just war doctrine
  - application of international law of war 246
  - Christianity and 223
  - Classical Antiquity and 223
  - common sense and 246
  - historical relation of just war doctrine and the international law of war 223
  - increase in the study of 246
  - limitation of war by the requirements of morality and law 223
  - military biomedical research and 540
  - public debates over the morality of nuclear deterrence/defense 246
  - war-conduct law 225, 230
  - war-decision law 224, 240
- Justice principle
  - clinical encounter and 14
  - euthanasia on the battlefield and 391
  - historical basis 37
  - human research subjects and 578, 592
  - Rawls' contraction theory 37
  - traditional medical ethics and 37

## K

- Kaneko Junichi
  - Japanese National Institute of Health role 495
- Kant, Immanuel
  - assumption of moral goodness 32
  - deontology theory 7, 10, 29, 33
  - theoretical focus of 30
- Kanter, R.
  - stress and women in the military 726
- Kaplan, S.H.
  - communication styles of physicians 119
- Kass, L.R.
  - teleological theory of medicine 71
- Katz, Jay
  - attitude of the researcher towards the volunteers in the Tuskegee Syphilis Study 567
  - human experimentation comments 454
- Kawashima Kiyoshi, Maj. Gen.
  - testimony on the number of prisoners killed in experiments 484
- Keegan, J.
  - history of warfare and the history of the world relationship 133
  - Roman centurions as the first professional fighting officers 133
  - world need for skillful and disciplined soldiers 154
- Keenan, J.
  - casuistry description 64
- Kellogg-Briand Pact
  - war-decision law and 225
- Kennedy Institute of Ethics
  - ethics training 82
  - foundation of 73
  - National Reference Center for Bioethics Literature 121
- Kennedy, Pres. John F.
  - endorsement of military civic action 779
  - program in support of host-nation military civic action programs within Latin America 780
- Kennedy, Sen. Edward
  - human experimentation subject protection and 521
- Kidd, Alexander
  - protection of research subjects and 519
- Kidder, R.M.
  - conservation principle 283
- Kidney transplants
  - transplantation of chimpanzee kidneys into human patients 520
- Kitano Masaji, Lt. Gen.
  - immunity from prosecution for medical experimentation on human subjects 490
  - Japanese biomedical experimentation role 480
  - postwar activities 494
- Kitano Masami, Dr.
  - experimentation on mental patients 495
- Kluckhohn, F.
  - cultural and religious values 691
- Knights Hospitaller
  - defense of hospitals against "enemies of the Faith" 303
  - loyalty and service and 135
- Knights Templar
  - loyalty and service and 135
- Kobrick, Dr. John
  - recruitment of volunteers for the Natick program and 571
- Koehler, R.H.
  - percentage of soldiers returned to duty after surg 288
- Koizumi Chikahiko (Japanese Surgeon General)
  - patron of Ishii Shiro 476
- Kojima Takeo, Capt.
  - Japanese biomedical experimentation role 487
- Kolmer, John A.
  - polio vaccine research 511
- Komoto Saisaki
  - plot to kill Marshall Chang Tso-lin 473
- Kong, H.
  - ethical teaching rounds on the Obstetrical Service of the Toronto Western Hospital 83
- Konold, D.E.
  - early years of American medical ethics 66
- Korea
  - Armed Forces Assistance to (exhibit) 780
- Korean War
  - abstention from the use of chemical weapons 234
  - care of subordinates and 166
  - disease as the cause of morbidity 539
  - fixed-length tours 166
  - officers' technical competence and 166
  - treatment of prisoners of war 236
  - United Nations participation 227
  - war crimes trials and 239
- Koski, Dr. Greg
  - human experimentation subject protection and 521
- Krieger, Dr. Knut
  - creation of incapacitating systems 834
- Kriegsraison* doctrine 231
- Kushner, Rabbi Harold 706



- Kuwait  
  invasion by Iraq 229
- Kyushu Imperial University  
  vivisection experiments on prisoners of war 489
- L**
- La Puma, J.  
  goal of ethics consultants 77
- Lain Entralgo, Pedro  
  patient-physician relationship 8, 11
- Lamiel, Col. James M.  
  soldier's perception of medical care 840
- Land mines  
  estimation of injuries from 794  
  follow on care for victims of 794  
  injury reduction program 794  
  regulation of the use of 233  
  Salvadoran guerilla use of 783, 785
- LATAM COOP. *See* Latin American Cooperative Fund
- Latin America. *See also* Central America; *specific countries*  
  Kennedy's program in support of host-nation military civic  
    action programs within Latin America 780  
  military medical programs 775
- Latin American Cooperative fund  
  Subject Matter Expert Exchange program support 775
- Laughton, C.J.  
  spouse support as a predictor of career commitment among  
    married men in the military 729
- Law for the Prevention of Genetically Disease Offspring  
  encouragement of reproduction of desired traits 411  
  estimated number of people sterilized in Germany 411  
  minimizing reproduction of "defectives" 410  
  provisions 410  
  text 426  
  United States as a model for 411
- The Law of Land Warfare*  
  duty of medical impartiality 303  
  Geneva Conventions and 301
- Laws. *See also* Legal issues; *specific laws and pieces of legislation*  
  casuistry and Anglo-Saxon law 45  
  ethics and the requirements of laws or regulations 333  
  external and internal morality and 11  
  "good samaritan" law 334  
  paternalistic and moralistic laws of the United St 255  
  public policy medical ethics and 35
- Laws of war  
  Hague and Geneva Conventions 143, 154  
  professional military ethic and 139, 142, 147
- Lazarus Project  
  ATP administration issues 846  
  cellular metabolism and 844  
  compensatory justice principle and 845, 847  
  description 844  
  ethical issues of using ATP in combat 845  
  personnel status monitor (PSM) system (exhibit) 846  
  telemonitoring and personnel status monitors and 846  
  U.S. Navy sponsorship and funding of 844
- League of Nations  
  war-decision law and 225
- Lebanon War  
  Israeli siege of the PLO forces 233  
  PLO's practice of putting antiaircraft batteries, artillery, and  
    military vehicles in residential neighborhoods 243
- Leedom, Stanley  
  death to son due to blood preservation research 519
- Legal issues. *See also* Laws  
  algorithm for conflicts between ethics and the law 861  
  courts' view of the special status of the military 150  
  inappropriate surrogate case study 862  
  legal consequences and moral decisions 111  
  physician-assisted suicide 114
- Legal moralism principle of autonomy  
  description and example 254, 255
- Legislation. *See* Laws; *specific pieces of legislation*
- Lehmann, J.F.  
  racial hygiene movement and 408
- Leininger, M.  
  observation of an American nurse with a Philippine patient  
    711
- Lenz, Fritz  
  human genetics textbook 409  
  racial hygiene movement and 408  
  status of women as childbearers 411  
  sterilization of "defectives" 411
- Levy, Howard  
  refusal to obey an order to train Special Forces Aidmen in  
    dermatological skills 304, 305, 312, 317, 320, 753
- Lewisite  
  U.S. research on 514
- Liability issues  
  human experimentation subjects 515  
  radiation research 528
- Libertarianism  
  autonomy and 39  
  strengths 39  
  weaknesses 39
- Lieber, Prof. Francis  
  war-conduct code 225, 246
- Liebrand, Werner  
  testimony on the issue of voluntary participation in human  
    experimentation 516, 517
- Life following tragedy  
  case study 676
- Limited Test Ban Treaty  
  provisions 235
- Livingston, Gordon  
  treatment of prisoners of war 319, 320
- Livingston, Robert  
  protection of human research subjects and 520
- Llewellyn, C.  
  practice of medicine in peacetime and wartime 723
- Lloyd's of London  
  insurance coverage for human experimentation 515
- Loewy, E.N.  
  "suffering" and communitarian ethics 42, 44
- Logistics  
  case study (exhibit) 837
- Longitudinal studies  
  description 583
- "Looking the other way": participation by silence  
  case study 398
- Loyalty  
  as a professional value 142  
  feudal system and 134  
  honor and 172  
  mercenary soldiers and 135  
  military professionals and 141, 142–154, 144
- LSD. *See* Lysergic acid diethylamide
- Lt. Stone's dilemma case study 131, 154
- Lutz, Dr. W  
  hypothermia and hypoxia research 442, 459
- Luz, G.A.  
  criteria for planning, executing, and evaluating medical civic

action programs 815  
 Lying. *See* truth-telling case study  
 Lynch, A.  
     ethical teaching rounds on the Obstetrical Service of the  
     Toronto Western Hospital 83  
 Lysergic acid diethylamide  
     Army research 570  
     CIA research 526  
     informed consent and 548, 570  
     unethical nature of research 545

## M

MacArthur, Gen. Douglas  
     denial of the presence of Chinese soldiers in Korea 160  
 MacIntyre, Alasdair  
     different perspectives for moral enquiry 54  
     fact/value distinction 110  
     virtue theory 32  
 Macklin, R.  
     moral philosophers' qualification to be clinical ethicists 75  
 MAD. *See* Mutual assured destruction  
 Magsaysay, Ramon  
     concept of counterinsurgency 779  
 Mahlmeister, L.  
     work design and quality of nursing care 681  
 Malaria  
     German research on 452  
     Japanese biomedical experimentation on 488  
     returning sick soldiers to duty 339  
     soldiers' poor compliance in taking Atabrine and incidence of  
     340  
 Managed care  
     as a subculture of healthcare 705  
     description 705  
     patient-physician relationship and 8  
     physicians as gatekeepers to care 17, 37  
     public policy medical ethics and 34, 35  
     research on the quality of care 109  
 Manchester, James  
     death of Iraqi prisoners and soldiers during "friendly fire"  
     incident 455  
 Manchuria  
     Japanese acquisition and renaming of 472, 477, 486  
     natural resources of 472  
 Mandel, Ernest  
     cancer research 520  
 Manhattan Project  
     plutonium research and 524  
 Mansfield Amendment  
     requirement that DoD-funded research solve military  
     problems 536  
 MAP. *See* Military Assistance Program  
 Marcus Aurelius  
     influence on clinical ethics 64  
 "Marital Health Law". *See* Nuremberg Laws  
 Marlowe, D.H.  
     technology and the modern army 213  
 Marriage. *See* Nuremberg Laws  
 Marshall, S.L.A.  
     number of soldiers who fire their weapons in combat 176  
 Marx, K.  
     view of religion 696  
 Masuda Tomasada  
     "Rape of Nanking" role 481  
 Matsumoto Hiroshi  
     testimony on Japanese biomedical experimentation 484

McCollum, J.K.  
     CORDS program success 782  
 McCormick, R.A.  
     double-effect principle 242  
 McCullough, L.B.  
     normative ethics principles 38  
 McGee, Dr. Anita Newcomb  
     selection of nurses for the Army 664  
 Mead, Margaret  
     studies of child rearing in various cultures 108  
 Mechanic, D.  
     behavioral-science approaches to disease, illness, and sickness  
     733  
 MEDCAP exercise in rural Africa  
     case study 810  
 MEDCAPs. *See* Medical civic action programs  
*Médecins du Monde*  
     alternative to military service for physicians 309  
*Médecins sans Frontières*  
     alternative to military service for physicians 309  
     objection to U.S. military airdrops of humanitarian supplies in  
     Afghanistan 808  
     view that humanitarian aid must be delivered by neutral  
     organizations 819  
 Media  
     American popular press view of covert and deceptive  
     American medical experimentation 519  
     "bloodless" war and 835  
     fusionism and 208, 214  
     "human interest" articles in the American press on Nazi  
     hypothermia research 516  
     paternalistic separatism and 211, 212  
 Mediation models  
     description 51  
     strengths 51  
     weaknesses 51, 53  
 Medicaid  
     establishment of 69  
 Medical aircraft  
     Geneva Conventions and 749  
 Medical Biological Defense Research Program  
     criticisms of 541  
 Medical civic action programs  
     in El Salvador 794  
     in Honduras 783  
     programs that are of long-term value to patients 816  
     training value of 814  
     Vietnam War and 782  
 Medical ethics. *See also* Military medical ethics; Nazi medical  
 ethics; *specific types of ethics, e.g.,* Clinical ethics  
     analysis of ethical judgements 27  
     ancient forces in 27  
     common ethics for health professions 18  
     complexity of developing a model for 54  
     culture and 17, 28  
     definition 5, 25, 26  
     essence of ethical behavior 295  
     external sources 10, 13  
     focus of 27, 47  
     growth of since World War II 25  
     historical basis 5  
     internal sources 11, 18  
     intertwining branches of 34  
     philosophy and 28  
     physician-soldiers and 273, 280  
     public policy branch 34, 35  
     reconstruction of 7

- religion and 27
- resources 121
- science and 27
- "total institutions" and 306
- Medical mobile training teams
  - humanitarian assistance and 775
  - sent to El Salvador by Pres. Reagan 793
- Medical professionals. *See also* Physician-soldiers; Physicians
  - responsibility to society 271
- Medical readiness training exercises
  - as a model for U.S. military deploys to medically underserved areas 766
  - services provided in Honduras 788
  - term "civic action" to replace 792
- Medical records
  - Geneva Conventions and 755
  - telemedicine and 839
- Medical Rules of Engagement
  - humanitarian assistance and 819, 826
- Medical schools
  - ethics training 81
- Medical students
  - clinical ethics education 79, 88
  - culture of physicians and 703
  - pledge signed during the Vietnam War 309
  - societal obligations 16
- Medical transports
  - Geneva Conventions and 749
- Medical units
  - acting as depots for military weapons 752
  - acts harmful to the enemy and 751
  - capture of 752
  - conditions that do not deprive a medical unit of its protections 752
  - destruction of material and stores 752
  - fixed units 752
  - Geneva Conventions and 751
  - mobile units 752
  - primary right of 751
  - sentries, guards, or armed escorts and 752
  - unintentional harm to 751
- Medicare
  - establishment of 69
  - military retirees and 728
- MEDRETEs. *See* Medical readiness training exercises
- Meiling, Dr. Richard
  - human radiation experiments and 569
- Men. *See also* Women
  - commissioning as nurses 667
  - spouse support as a predictor of career commitment among married men in the military 729
- Mengele, Josef
  - activities under the Nazi regime 410
- Mental health professionals. *See also* Psychiatry
  - combat stress breakdown and 180
- Mercenary soldiers
  - loyalty and 135
- Merck, George
  - biological warfare tests and 527
- Metaethics
  - description 107
- Methods in Medical Ethics* 108
- Mexican-Americans
  - diet of 700
- Meyer, Gen. Edward C.
  - reforms initiated by 163, 165
- Michigan State University
  - Medical Humanities Program 82
- Mikasa, Prince (Japan)
  - biomedical experimentation role 469
- Military Assistance Program
  - Draper Committee Report recommendations 779
- Military biomedical research. *See also* Human volunteers in military biomedical research
  - animal experimentation issues 552
  - civilian applications 539
  - combat casualty care research 537
  - criteria for conducting ethically responsibility research 546
  - distinction between offensive and defensive research 540, 544, 545
  - "do no harm" principle and 539, 540, 545
  - escalation of biological and chemical weapons and 542, 543
  - ethical conduct of 545
  - ethical distinction between constructive and destructive research 535
  - ethical legitimacy 535, 538
  - ethical status of soldiers and 547
  - exclusion problem 546
  - five research areas 536
  - funding for 541
  - funding limitations and 540
  - gender bias in selecting research subjects 546, 558
  - human systems technology research 537
  - informed consent issues 546
  - just war doctrine and 540
  - medical biological defense research 537
  - medical chemical defense research 538
  - militarization of medicine and 541, 543
  - military disease hazards research 536
  - Military Research Volunteer Program and 548
  - military significance requirement 536
  - military women's research program 555
  - mission of 557
  - monitoring and inspection of 543
  - national risk *versus* national security 544
  - nature of 536
  - nonlethal microwave weapon technology 545
  - nonparticipation view of 541
  - participation point of view 542
  - Persian Gulf War experience 549
  - potential uses for both good and evil 540
  - practicality and American moral ideals 548
  - pregnancy possibility as a justification for excluding women 556
  - programmatic environmental impact statements and 543
  - prohibition of 541
  - prohibition of research that poses unacceptable risk 544
  - public safety and 544
  - risk and benefit analysis 541, 544
  - risks to nonresearch participants 544
  - scientists' concerns over control over their research and 540
  - violation of law, morality and ethics and 542, 543
- Military culture
  - adultery and 191
  - atrocities and 172
  - authoritarian command climate 188
  - authority, discipline, and maladaptive cultural practices 181
  - building a sense of security for subordinate leaders 187
  - building security among subordinates and 181
  - building support for discipline and the command structure 182
  - command in ethically ambiguous situations 184
  - contingencies of reinforcement that evolve in 159
  - creating an ethical framework 183

- "do more with less" slogan and 186
- Doolittle Commission Report (exhibit) 189
- elements of an ethically supportive culture 186
- empowerment of subordinates 189
- ethical components of 180
- general inspections and 181
- homosexuality and 191
- institutional fraud and 181
- intrainstitutional communication 184
- leader self-maintenance 189, 190
- managing subordinates' time and energy 186
- nature of discipline 182
- reasons why it is difficult to live by ethical principles in 192
- sexual abuse and 190
- sexual behavior in gender-integrated units 189
- sleep deprivation and command decisions (exhibit) 191
- tradition of threatening subordinates 187
- unit status reports and 181
- weak and insecure commanders (exhibit) 187
- Military Health Services System
  - provision of care to families of military personnel and retirees 728
- Military medical ethics. *See also* Battlefield medical ethics
  - compensatory justice principle 855
  - conflicts between ethics and the law algorithm 861
  - conflicts between the exclusive moral visions of various groups 867
  - decision-making algorithm 855
  - descriptive bioethics and 122
  - military physicians as military officers 853
  - mixed agency in 333
  - overriding of soldiers' interests 854
  - physician-soldiers and 271, 295
  - proposed military medical ethic 853
  - vulnerability of patients and 854
- Military Medicine*
  - articles concerning military medical triage 297, 301
  - Swann scenario 384, 388
- Military physicians. *See* Physician-soldiers
- Military professionals. *See also* Military-society relationship; Physician-soldiers
  - American professional military ethic 141
  - Army Command and General Staff College for field grade officers 139
  - autonomy and 253, 259, 318, 324
  - autonomy principle and 380, 383, 547
  - basic courses for junior officers 139
  - bonding and 178, 278, 342
  - characteristics of the profession 137
  - common experience and 278
  - comparison of military and medical professions (table) 281
  - corporateness and 140, 272, 276
  - courage and 138, 142, 144
  - development of professional military forces 132
  - discipline and 138
  - emphasis of professionalism 131
  - enhancing soldiers' capacity to fight 840
  - ethics in the military 276
  - ethos of 276, 322
  - expertise and 272, 276
  - female soldier issues 555, 556
  - feudalism and 134
  - graduate degrees from civilian schools for officers 140
  - historical roots 131
  - homosexuals in the military 149
  - international laws of war and 139, 142, 147
  - laws of war and 139, 142, 147
  - loyalty and 141, 142, 144
  - Lt. Stone's dilemma case study 131, 154
  - mercenaries and militia 135
  - moral dilemmas of leadership case studies 131, 152, 154
  - moral example role 272
  - necessity of military forces 133
  - oath of enlistment (exhibit) 276
  - overriding ethical principles 296
  - parent society and 138
  - persons who qualify as 137
  - pluralism and 148
  - possession of necessary skills and 138
  - present-day military 137
  - primitive societies and 132
  - "profession" definition 272
  - professional beginnings 135
  - professional ethics as a moral compass 131
  - professional similarities between medicine and the military 279
  - professional soldier description 137
  - professional values 142
  - professionalism and membership in the military profession as a matter of degrees 137
  - refusal to obey illegal orders 141
  - responsibilities 272, 276
  - return to duty considerations of minimally wounded soldiers 373
  - roles of 277
  - senior service colleges for officers 139
  - shaping influences of the professional military ethic 138
  - societal obligation to protect soldiers as much as possible 836
  - societal values and 139
  - society's awareness of soldiers' sacrifices 843
  - special benefits for 855
  - specialized education and training 139
  - systematic warfare introduction 133
  - tasks of a capable military strategist 140
  - the state and the genesis of armies 133
  - U.S. Constitution 276
  - U.S. Constitution and 143, 148, 151
  - use of soldiers as research subjects 538, 547, 551
  - violence and destruction and 277
  - warriors and soldiers 132
  - women in the military 148
- Military Psychiatry* 826
- Military Psychiatry: Preparing in Peace for War* 373
- Military Research Volunteer Program 548
- Military role-specific ethical situations
  - administration of unproven pharmaceuticals 337
  - allowing commanders to make decisions 340, 341
  - combat fatigue treatment 335
  - counseling and utilization of irradiated soldiers 342
  - deontological values and 343
  - euthanasia on the battlefield 393
  - removing mentally unstable soldiers from combat 342
  - rule-utilitarian reasoning and 340
  - treating and conserving the fighting strength 339
  - treatment to return soldiers to duty 339
  - triage treatment priorities 340
  - truth telling in the combat theatre 338
- Military-society relationship. *See also* Military professionals
  - assessing the theories 209
  - classic and extended separatism 201, 209, 215, 216
  - fusionism 206, 214, 216, 217
  - identicalism 205, 212, 215, 216
  - modern war and 201
  - moral example role of the military professional 272



- overview of 272
  - paternalistic separatism 204, 211, 215, 216, 217
  - placing the needs of society ahead of personal needs and 272
  - relationship of the military to the society it serves: summary of
    - the four major theories (table) 216
  - role of physicians and society 271
  - theories concerning 201
  - Militia
    - development of citizen armies 235
    - in the United States 137
  - Mill, John Stuart
    - autonomy principle and 253
    - individual conceptions of freedom 30
    - paternalism and 254
    - principle of utility maximization 7, 10
    - utilitarian theory 28, 33
  - Millennium Cohort Study
    - description 583
  - Minneapolis, MN
    - surreptitious release of bacterial agents over 527
  - Minnesota Multiphasic Personality Inventory
    - identifying homosexuals and 354
  - "Miss Evers' Boys" 567
  - Mission priorities and medical care
    - case study 822
  - Mixed agency in military medicine
    - battlefield issues 371, 373
    - civilian physicians and 333, 357
    - clinical research and 295
    - conflicting duties of physicians 853
    - description 295, 333
    - discretionary situations 333, 343
    - emotional effect of role conflict 356
    - medical role-specific situations 333
    - military role-specific ethic situations 333, 335, 357
    - peacetime and wartime mission and 702
    - requirements of law or regulations and 333
  - MMPI. *See* Minnesota Multiphasic Personality Inventory
  - Mondale, Sen. Walter
    - human experimentation subject protection and 521
  - Moore, Joseph Earle
    - CMR's policy on human experimentation and 514
  - Moral pacifism
    - description 257, 259
    - resignation from the Army and 257, 259
  - Moral pluralism
    - description 46
  - Moral protests
    - civilian judgement of military personnel's participation in 318
    - physician-soldiers and 306, 318
  - Mormons
    - life expectancy 697
    - religious garments 699
  - Moskos, C.C.
    - institutional/occupational thesis 722, 730
  - Moynihan, Sen. Daniel P.
    - secrecy and research comments 529
  - MPAs. *See* Multiple Project Assurances
  - MTTs. *See* Medical mobile training teams
  - Multimethod research
    - triangulation and 119
  - Multiple Project Assurances
    - DoD points of contact for (exhibit) 580
    - filing requirements 581
  - Munroe, J.
    - "character" definition 159
  - Murray, John Courtney
    - excessive force views 834
  - Muslims. *See* Islam
  - Mustard Gas
    - Navy experiments using naval personnel 568
    - U.S. research on 513
  - Mutilations
    - Geneva Conventions and 758
  - Mutter und Kind* program 28
  - Mutual assured destruction
    - nuclear weapons and 244
  - My Lai massacre
    - atrocities example (exhibit) 175
    - case study 264
    - cover-up of 207
    - obeying orders and 142, 264
    - Wakin's analysis of 308
  - Myanmar
    - military as government 138
- ## N
- Nabetani, Surgeon Lieutenant
    - Japanese biomedical experimentation role 489
  - NABUCA. *See* *Nation Building Contributions of the Army*
  - Nagata Tetsuzan, Gen.
    - assassination of 473
    - patron of Ishii Shiro 475
  - Naito Ryoichi, Lt. Col.
    - human experimentation program comments 466
    - Japanese biomedical experimentation role 481
    - postwar activities 494
  - Nakamura Keizo
    - Japanese National Institute of Health role 494
  - Nanking
    - Japanese biomedical experimentation site 481
  - Napalm
    - "superfluous suffering" principle and 233
    - Weapons Convention regulation of 225
  - Napoleon
    - development of the officer ranks and 136
  - Narrative ethics
    - case study descriptions 115
    - external morality example 10
    - strengths and weaknesses 43
    - truth-telling case study and 43, 53
  - Natick, MA, climatic research program
    - development of 570
    - example of a program 597
    - number of dropouts 599
    - permanent party volunteers 600
    - reassignment to another installation and 599
    - success of 600
    - "voluntariness" of 599
  - Nation Building Contributions of the Army*
    - "Civil Operations, Revolutionary Development Support" effort 782
    - study description 781
  - National Academy of Sciences
    - military biomedical research program reviews and development 558
  - National Bioethics Advisory Commission
    - establishment of 510
  - National Breast Cancer Coalition
    - lobbying effort for funding 557
  - National Cancer Institute
    - breast cancer research 557
  - National Command Authority

- military ethics and 192
- National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research
  - Belmont Report* and 572
  - biomedical research principles 693
  - distinction between research and accepted medical practice and 538
  - creation of 521
- National Endowment for the Humanities
  - Society for Health and Human Values funding 74
- National Institute of Mental Health
  - Epidemiologic Catchment Area substance abuse survey 696
- National Institutes of Health
  - assurance filing requirements 580
  - "community consultation" for research performed in an emergency setting 845
  - guidelines for the inclusion of more women and minorities in research 555
  - legislation calling for oversight of 521
  - Office of Protection From Research Risks and anthrax vaccination of troops 337
  - protection of human research subjects 520
  - responsibility for governmentally sponsored medical research 542
  - transplantation of chimpanzee kidneys into human patients 520
- National Library of Medicine
  - National Reference Center for Bioethics Literature support 121
- National Quality of Life Survey
  - religious activity and 697
- National Reference Center for Bioethics Literature 121
- National Research Act
  - creation of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research 521
  - institutional review boards 521
- National Security Industrial Association Medical Technology Education Conference
  - Dr. Joseph's speech to 836
- National Socialist Party. *See* Nazi medical ethics; Nazis
- National Socialists Physicians' League
  - formation of 409
- National Technical Information Service
  - nursing research literature 680
- Native American Indians
  - lactose intolerance and 700
  - religious symbols 699
- NATO. *See* North Atlantic Treaty Organization
- Natural law theory
  - war-conduct law and 230
- Natural Commission for the Protection of Human Sub
  - creation of 73
- Natural law theory
  - basis for 112
  - description 30, 32
  - descriptive ethics and 112
  - principlism and 72
- Naturalistic fallacy 110
- Naval Medical Center, Portsmouth, VA
  - multidisciplinary Medical Ethics Committee 678
- Naval Research Laboratory
  - gas warfare agent research 514
- Nazi Doctors and the Nuremberg Code* 519
- Nazi hypothermia and hypoxia research
  - anthrax threat as a contemporary analogy 440
  - appropriateness of using data from 449
  - as classic example of lethal unethical scientific conduct 439
  - body-to-body rewarming 446, 449
  - careful recording of data 441, 448
  - clothing and hypothermia protection 445
  - contemporary considerations and questions 440
  - cooling studies 445
  - ethanol effects on hypothermia 442, 446
  - ethical replication of 449
  - ethics and science relationship and 452
  - experimental methods of the hypothermia studies 444
  - "human interest" articles in the American press 516
  - "hypothermia" definition 442
  - impetus for 439
  - internal knowledge of the hypothermia data 447
  - Japanese experiments comparison 484
  - legacy of the Dachau experiments 454
  - list of researchers and assistants (exhibit) 443
  - number of experiments performed 445
  - number of recorded deaths 445
  - number of subjects 445
  - physiological dilemmas concerning human performance in hostile thermal environments 439
  - rapid rewarming therapy 442, 446, 447
  - results of the hypothermia research 445
  - rewarming studies 446
  - safeguards against future unethical human experimentation 452
  - SENOT code name 443
  - social and political movements and 440
  - steps used (figures) 450
  - subject selection 445
  - uncovering the process in Germany 441
  - use of the Dachau data after World War II 448
  - validity of the data 449
- Nazi medical ethics
  - birth control use 407, 415
  - chronology of the implementation of medical ideology 410
  - "crisis" in modern medicine and 417
  - "euthanasia" operation 413, 440, 441
  - genocide program ("The Final Solution") 414, 431, 440, 441
  - growth of medical community under the Nazis 417
  - history of German medicine in the 1920s and 1930s 405
  - Law for the Prevention of Genetically Diseased Offspring ("Sterilization Law") 410, 426
  - medical experiments 415
  - misunderstandings concerning 405
  - National Socialist Physicians' League formation 409
  - Nazi scientific accomplishments (exhibit) 407
  - Nuremberg Laws 412, 427
  - politicization of German medicine 405, 419
  - racial hygiene movement 407
  - reasons why German physicians supported the Nazis 417
  - "reluctant physician" myth 405, 409
  - research funding 418
  - "science vs. facism" thesis 405
  - "selection" and "counterselection" 409
  - severity of the ethical breach 405
  - starvation of mental patients, the homeless, and other "useless eaters" 414
  - timeline of political and medical events in German 422
- Nazis. *See also* Germany; Nazi hypothermia and hypoxia research; Nazi medical ethics
  - argument for eugenics 28
  - communitarian ethics and 42, 44
  - example of loyalty to one's nation and race 32
  - example of strong community raising persons considered reprehensible by others 31
  - genocidal conduct of 230, 317, 334, 343

- medical atrocities 73, 333
- Mutter und Kind* program 28
- The Netherlands
  - Op ten Noort* hospital ship detention by the Japanese 750
- New Haven, CN
  - religious activity and illness survey 697
- New York City subway system
  - surreptitious release of bacterial agents in 527
- New York State Psychiatric Institute
  - hallucinogen research on patients 526
- NGOs. *See* Nongovernmental organizations
- Nicaragua
  - Contra civil war 785
- Nightingale, Florence
  - promotion of military nursing 663
- Nightingale Pledge
  - recognition 682
  - text of 665
- Nightingale School of Nursing
  - founding of 664
- NIH. *See* National Institutes of Health
  - 1991 International Guidelines for Ethical Review of Epidemiological Studies 582, 611
- Ningbo
  - Japanese pathogen tests on civilians 484, 486
- Nishimura Yuni, Col.
  - Japanese biomedical experimentation role 481
- Niven, Edward
  - death from *Serratia* infection 527
- Noble, Albert
  - mutual annihilation view 834
- Nominal Group Technique
  - description 119
- Nomonhan Incident
  - field testing of biological weapons 484, 486
- Non-Hodgkin's lymphoma
  - Vietnam veterans and 735
- Non-Proliferation Treaty
  - provisions 235
- Nonaustere conditions model of triage
  - description 381
- Nongovernmental organizations
  - humanitarian assistance and 800, 801
  - identifying potential problems with humanitarian assistance programs early 816
  - mental health counseling 823
  - preparation of workers for the experience of being taken hostage or tortured 827
  - vulnerability of 820, 824
- Nonlethal weapons
  - maximizing the overall good 834
  - medical ethical concerns 834
  - types of 833
- Nonmaleficence principle
  - clinical encounter and 13
  - euthanasia on the battlefield and 391
  - excluding women from research protocols and 557
- Nonmaleficence principle
  - Hippocratic Oath and 37
- Normative ethics
  - clinical ethics 46
  - clinical ethics and 71
  - deconstructionism and 70
  - description 38, 107
  - descriptions of facts relevant to normative arguments 113
  - empirical studies and 112
  - empirical testing of normative theories 114
  - human responses to normative questions and 112
  - principles of 38
  - purely descriptive studies 112
  - relationship between descriptive ethics and 110
  - strengths 38
  - substituted judgement theory 115
  - testing compliance with established or new norms 113
  - weaknesses 38
- North Atlantic Treaty Organization
  - Serbian war against Croatia and Bosnia and 228
- North Korea
  - "rogue" state status 245
- Nozick, R.
  - libertarianism 39
- NRL. *See* Naval Research Laboratory
- Nuclear radiation exposure. *See also* Human radiation experiments
  - counseling and utilization of irradiated soldiers 342
- Nuclear weapons
  - degree of threat and 244
  - deterrence-plus strategy 244
  - detering the use of 234, 243
  - "hotline" agreements 234
  - International Court of Justice position on 307
  - mutual assured destruction and 244
  - nuclear pacifists and 241
  - participation of physician-soldiers in research on 305
  - public debates over 246
  - reasons for nations to develop 243
- Nuremberg Code
  - ethical conduct of biomedical research and 545, 572
  - informed consent and 297, 352
  - informed consent requirements 548
  - principles of 516
  - text (exhibit) 519
  - U.S. government and 521
- Nuremberg Doctors' Trials
  - American participation 516
  - defendants, verdicts, and punishments 435, 511
  - Nuremberg Code and 516
  - reports on in the American press 516
  - the issue of "voluntary prisoner participation" raised by the defense at (exhibit) 517
- Nuremberg Laws
  - Law for the Protection of German Blood and German Honor 428
  - Law for the Protection of the Genetic Health of the German People 429
  - provisions 412, 415
  - Reich Citizenship Law 427
  - United States miscegenation legislation and 412
- Nuremberg Trials. *See also* Nuremberg Doctors' Trials
  - Crimes Against Humanity and 230
  - criticisms of 239
  - obeying illegal orders 141
- Nurses
  - care-based ethics and 109
  - Lavinia Dock's statement on nursing ethics 83, 84
  - professional independence of 69, 70
- Nurses' Associated Alumnae of the United States and Canada
  - code of ethics 666
- Nursing ethics and the military. *See also* Physician-soldiers; Physicians
  - administrative and clinical dilemma comparison 680
  - "advanced practice nurses" 668
  - associations with the private nursing sector and the status of women in society 663

autonomy principle 674  
 beneficence principle 673  
 clinical interactions 674  
 collaborative practice between physicians and nurses and 676  
 continuing education in ethics 677, 683  
 deliberation and integration components of the ethical  
   decision-making process 677  
 early nursing ethics 663  
 ethical decision making 673  
 ethical principles in the conduct, dissemination, and imple-  
   mentation of nursing research (exhibit) 679  
 ethical standards for nurses 665  
 etiquette focus of early nursing 664, 682  
 fair and cost-effective recruitment and retention practices and  
   681  
 goal of nursing 671  
 institutional ethics committees in healthcare facilities and 675  
 Internet site for ethics education 678  
 junior nurse's personal account of and ethical dilemma 677  
 male registered nurses 667  
 miscommunication and 672, 683  
 multidisciplinary approach 676  
 Nightingale Pledge 665, 682  
 nurse participation in advertising professional services and in  
   setting terms and conditions of employment 666  
 nurse practitioners 667, 668  
 nurses as "forgotten veterans" 663  
 nurses' experience of war 663  
 nurses' role in research 679, 683  
 nurses' role in the Vietnam War and 667, 674  
 nursing administration and 680, 683  
 nursing and medicine 669, 671  
 "nursing" definition 669  
 physician and nurse comparison 672, 673, 683, 703  
 protection from workplace violence and 681  
 relationships between superiors and subordinates and 675  
 reporting questionable actions or situations 681, 683  
 resolving ethical dilemmas 674  
 social contract for nursing 669  
 topics most addressed by ethics committees 676  
 traditional ethical questions in healthcare and 669  
 traditional view of nurses 663  
 wartime nursing and 674, 683  
 work design and quality of care 681  
*Nursing Ethics for Hospital and Private Use* 665  
 Nursing Ethics Network  
   Internet site for ethics education 678  
 Nutrition  
   Japanese biomedical experimentation on how little food  
     humans require to stay alive 488, 490  
 Nye, R.H.  
   tasks of a capable military strategist 140

## O

Oak Ridge Hospital, TN  
   plutonium research on human subjects and 524  
 Objectivity character trait of physicians 14  
 Occupying forces. *See also specific countries*  
   responsibilities of under the Geneva Conventions 757  
 Office for Scientific Research and Development  
   Committee on Medical Research 513, 514  
   establishment 513  
   mission 513  
 Okuyama, Surgeon Commander  
   Japanese biomedical experimentation role 489  
 O'Leary, Hazel

documentation of human radiation experiments 510, 523  
 Olson, Frank  
   CIA "mind-altering" substances research subject 526  
*On Liberty* 30  
 "On the Duties of Patients to Their Physicians" 273  
 Open heart surgery  
   Dachau hypothermia data and 448  
 Operation Desert Storm  
   Army reforms and 164  
 Operation Just Cause  
   Army reforms 164  
   information for families-Operation Just Cause (exhibit) 169  
   objective of avoiding casualties among civilians and military  
     personnel 183  
   "Sand Flea" operations 183  
   vertical cohesion and 184  
 "Operation Redwing"  
   studies of radioactive clouds 569  
 Operation Resore Hope  
   United States role 184  
 "Operation Teapot"  
   studies of radioactive clouds 569  
 Oppenheimer, Robert  
   secrecy of research results 528  
 Organ transplantation. *See also* Kidney transplant  
   communitarian ethics and 42  
   Geneva Conventions and 758  
   moral arguments against liver transplants for alcoholics 113  
*Origin of Species* 407  
 Orthner, D.K.  
   spouse support as a predictor of career commitment among  
     married men in the military 729  
 Osler, William  
   essay on Sir Thomas Browne 67  
   introduction of the case method of instruction 67  
   philosophy of medicine 67  
 Ota Kiyoshi, Col.  
   pathogen tests on civilians in Chang Teh 484  
 Outer Space Treaty  
   provisions 235  
 "Overwhelming Force: What Happened in the Final Days of the  
   Gulf War?" 455

## P

Pacifism. *See* Conscientious objection  
 PAHO. *See* Pan American Health Organization  
 Pakistan  
   Non-Proliferation Treaty and 235  
 Palestine Liberation Organization  
   belligerent status and 231  
   practice of putting antiaircraft batteries, artillery, and military  
     vehicles in residential neighborhoods 243  
   treatment of prisoners of war 236  
 Pan American Health Organization  
   problems with mobile military hospitals 817  
 Panama. *See also* Operation Just Cause  
   objective of the U.S. invasion of 174  
 Pare, Ambroise  
   battlefield euthanasia 386  
 Paris Convention on the Prohibition of the Development,  
   Production, Stockpiling, and Use of Chemical Weapons and on  
   their Destruction  
   provisions 234  
 Park Ridge Center, Chicago  
   Project Ten 27  
*Parker v Levy*



- military as a separate society 151
- Parrish, J.A.
  - physician-soldiers 271, 289
- Participant observation studies
  - description 109, 118
  - labor intensive nature of 118
- PAS. *See* Physician-assisted suicide
- Paternalism principle of autonomy. *See also* Paternalistic separatism
  - description 254, 255
  - Hippocratic Oath and 273
  - Mill's position on 254
- Paternalistic separatism. *See also* Paternalism principle of autonomy
  - academia and 211
  - "black budget" buying of military equipment 204
  - classic or extended separatism and 204
  - communication with the government and society and 204
  - corruption example 212
  - critics of the military and 211
  - degenerative form 212, 215, 217
  - description 204
  - fictional General Paterson's thoughts on 204, 211
  - flaws of 211, 215, 217
  - fusionism and 207
  - media and 211, 212
  - side effects of evasive strategies 211
- The Patient as Person: Explorations in Medical Ethics* 693
- Patient duties, principles, and virtues 15
- Patient Self-Determination Act
  - facilitation of communication between clinicians and patients
    - about end-of-life care 113
  - implementation studies on Navajo Indian reservations 108
- Patient-physician relationship
  - basis for 63
  - clinical encounter 13
  - clinical ethics and 75, 77
  - conservation principle and 286
  - conversational analysis of patient-physician interaction 108, 119
  - decision making within 334
  - definition of "patient" 12
  - dialogues about values 41
  - ending a relationship 12, 16
  - entrepreneur model 8
  - external morality 10
  - futile treatments 16, 41
  - humanitarian assistance and 812
  - imbalance of power within 854
  - internal ethics 11
  - managed car model 8
  - patient duties, principles, and virtues 15
  - patients who threaten harm to others 16
  - phenomena of 11, 17
  - physician and nurse role comparison 672
  - physician as body mechanic model 8, 9
  - physician as businessman model 8, 34
  - physician as clinical scientist model 8, 9
  - physician as helper and healer model 9
  - physician as social servant model 9
  - physician virtues or character traits crucial to 14
  - physician's bond to the individual patient 275
  - principles and duties of the clinical encounter 13
  - psychomotor skills and 13
  - rationing of care and 17, 34
  - religious and cultural considerations 689
  - societal obligations 16
  - soldier-patients in battle as synonymous with civilian-patients
    - about end-of-life care 284
  - uniqueness of 10
  - vulnerability of the patient and 13, 16
- Patient's Bill of Rights
  - consumer movement and 6
- Patterson, Secretary of War Robert
  - Doolittle Commission Report and 188
- PB. *See* Pyridostigmine bromide
- Peabody, Francis
  - ethics as intrinsic to the practice of medicine 68
- Peace Corps
  - criticism of humanitarian assistance programs in Central America 797
- Peaceful Uses of Nuclear Energy Treaty
  - provisions 235
- Peers, Lt. Gen. William F.
  - ethical bankruptcy of the Army culture 182
- PEISs. *See* Programmatic environmental impact statements
- Pellegrino, Edmund D.
  - beneficence-in-trust principle 40
  - clinical ethics education beliefs 79
  - clinical ethics focus 63
  - clinical ethics research elements 79
  - collective ethics and 284
  - microcultural-level conflicts 694
  - narrative ethics and 43
  - phenomenological philosophy of medicine 71
  - physician character 32
  - principlism and 72
  - rationing of care 867
  - rationing of care and 37
  - Society for Health and Human Values and 73
  - ten-step workup (exhibit) 51
  - virtue ethic for physicians 693
- Pence, G.E.
  - core virtues necessary for any decent society 32
- Penicillin
  - Tuskegee Syphilis Study and 512, 521
  - use for U.S. military personnel during World War II 297, 341, 383
- Pennsylvania State University
  - Department of Humanities at the College of Medicine 82
- The Pentagon Papers* 162
- Percival, Thomas
  - "English gentleman" and his obligations to society 65
  - ethical code 11, 272, 273
  - therapeutic privilege concept 65, 67
- PERSCOM. *See* U.S. Army Personnel Command
- Persian Gulf War. *See also* Iraq
  - anthrax vaccination and 298, 314, 337
  - combat stress control teams 280
  - concept of discipline and 283
  - constitutional basis for 229
  - double-effect principle and 242
  - efficacy of cooling devices research 454
  - exposure of American service members to toxic chemicals 160
  - female soldier issues 555, 556
  - insufficient supplies of agents to prevent botulism and 338
  - Iraqi's practice of putting anti-aircraft batteries, artillery, and military vehicles in residential neighborhoods 243
  - Iraq's use of chemical weapons and 234, 337
  - military biomedical research issues 549
  - objective of the U.S. invasion of Kuwait 174
  - pyridostigmine bromide as a pretreatment against nerve agent
    - exposure 297, 313, 378, 538, 573, 857
  - sleep deprivation and 189

- United Nations participation 227
- veterans' illness after 725, 735, 736, 858
- war crimes trials and 239
- Peter, E.
  - nursing ethics 673
- Pharmacological optimization for the battlefield
  - anti-anxiety drugs 842
  - enhancing soldiers' capacity to fight and 840
  - fear reduction and 840
  - sleep-inducing medications 840
  - stimulants 841
- Philippines
  - cholera and beriberi research on prisoners 511
  - female privacy and modesty 711
  - Huk insurgence 779
- Philosophical structure
  - analysis of ethical judgements 27
  - ancient forces in ethics 27
  - applied medical ethics 34, 36, 70, 72
  - chapter overview 25
  - character of moral agent(s) 27
  - "civic republican thinking" and 26
  - clinical ethics 34, 44
  - comparison of principles, axioms, and rules (figure) 26
  - complexity of perspectives 25
  - condition of possibility and postmodern philosophy (exhibit) 40
  - consequentialism 28, 33, 36
  - deontology 29, 33
  - double-effect moral rule 27
  - ethics tree (figure) 24
  - intertwining of the branches of ethics 34
  - medical ethics definition 25, 26
  - moral obligation judgements 27
  - natural law theory 30, 32
  - postmodernism 7, 17, 40, 71
  - professional philosophers' challenge to the Hippocratic Oath 7
  - public policy branch of medical ethics 34, 35
  - radical relativism 54
  - realms of ethics 26, 48
  - teleology 28, 33
  - traditional ethical theories and associated theorists (table) 33
  - utilitarianism 28, 33
  - virtue theory 31, 34
- Phyllis J. Verhonick Nursing Research Symposium 681
- Physician-assisted suicide. *See also* Euthanasia
  - beneficence-in-trust principle and 41
  - contemporary philosophers and 7
  - legal issues 114
  - slippery slope arguments and 114
  - Statement on Physician-Assisted Suicide 753
  - Timothy E. Quill, "Jane Roe," et al Case 88, 102
- Physician-soldiers. *See also* Military professionals; Mixed agency in military medicine
  - alternatives to military service 308
  - as a formal part of the military 271
  - autonomy and 318, 324
  - basic training and 271
  - "burn out" and 836
  - care for enemy soldiers and 302
  - civilian populations as targets (figures) 310
  - coercive capabilities compared with civilian physicians 298
  - combining combat capabilities with medical care 304
  - comparison of military and medical professions (table) 281
  - competency requirements 320
  - conscientious objection and 307
  - conservation principle 282
  - corporateness and 272, 273
  - defense of society and 282
  - differing values and 271
  - differing views of the ethical basis of military medicine 322
  - enhancement of the military's ability to wage war and 271, 333
  - ethical dilemmas 296
  - ethics in medicine 280
  - ethics in medicine and 273
  - ethics in the military and 276
  - exercise of power and 854, 856
  - expertise and 272, 273
  - failing to provide care 301
  - "floodgate" effect of excusing soldiers from duty 334, 336
  - Geneva Conventions' protections and obligations 301
  - goals of war and 271
  - historical background 271
  - imposing immunization and 298, 315, 337
  - mandate of 321, 333
  - medical profession and military profession and 271
  - mixed agency and 853
  - moral nature of military medicine 321
  - moral obligation of the U.S. military medical service 320
  - moral opposition to a commander's decision and 862, 868
  - moral protest 306, 318
  - necessity of military medicine 322
  - neutral volunteers as care providers 319
  - noncombatant status of 280
  - nonlethal weapons and 834
  - oath of enlistment (exhibit) 276
  - overidentification with one's unit and 302, 319, 324, 854
  - overriding patients' wishes 298
  - participating in combatant roles 303
  - participating in militarily useful research and development 304, 313
  - participation in interrogation of prisoners of war 394
  - preventing physicians from acting as moral agents within the military and 305
  - primary role of 296, 333
  - profession of arms and 276, 289
  - profession of medicine and 273, 289
  - professional similarities between medicine and the military 279
  - psychiatric problems from a military perspective 300, 316
  - psychological effects of failing to save wounded soldiers' lives 836
  - rebuttals of key points of Sidel and Levy's comments 312
  - recordkeeping accuracy and 298, 315
  - responsibility and 272, 273, 289
  - restructuring medical service in the military and 308
  - setting medical priorities for military purposes 296
  - soldier-patients in battle as synonymous with civilian-patients in peacetime 284
  - "special responsibility" of 323
  - subordinating the best interest of the patient 296
  - torture and 305, 317, 395, 757
  - treatment of civilians and 302, 384, 316
  - treatment of prisoners of war and 316, 319
  - triage and 300, 313
  - using medicine as a weapon 304, 317
  - violating patient confidentiality in the name of national or military security 298, 315
  - withholding service from the Armed Forces and the end of war 309, 322, 323
- Physicians. *See also* Nursing ethics and the military; Patient-physician relationship; Physician-soldiers

- alternatives to military service 308
- anesthesia development and the advent of safe surgery 273
- as gatekeeper to care 17, 37
- body mechanic model of the patient-physician relationship 8, 9
- changing understanding of the origin of disease and the role of science and 273
- clinical scientist model of the patient-physician relationship 8, 9
- communication patterns 704
- comparison of military and medical professions (table) 281
- corporateness and 272, 273
- cost containment and 17
- culture of 703
- curing role 275
- "English gentleman" concept 65
- ethos of 273, 280, 322
- expertise and 272, 273
- goals of medicine in the presence of disease and death 275
- healing role 275
- helper and healer model of the patient-physician relationship 9
- International Code of Medical Ethics duties 766
- Japanese biomedical experimentation during the World-War-II era 465
- military physician's relationship to the military 18
- military vocabulary and 279
- mixed agency and 295, 333
- Nazi medical ethics and 405
- openness and 207
- operational conservation 283
- overriding ethical principles of medical practice 295
- philosopher role 274
- physician and nurse role comparison 672, 703
- physicians-in-charge and clinical ethicists 78
- prevention role 275
- priest role 274
- professional similarities between medicine and the military 279
- rationing of care 17, 34, 37
- relationship between cost-containing attitudes of physicians and their willingness to prescribe assisted suicide 114
- religious beliefs influence on clinical decisions 712
- responsibility and 272, 273, 289
- responsibility for reporting medical situations to the appropriate agencies 295
- roles of 274
- scientist role 274
- social servant model of the patient-physician relationship 9
- societal obligations 16, 379
- specialization of 70
- therapeutic privilege 65, 67
- "total institutions" and 334, 298, 306, 324
- virtues or character traits crucial to the patient-physician relationship 14, 80
- Physicians for Social Responsibility
  - nuclear war position 323
- Pictet, Jean
  - care of civilians 744
- "The Pill" contraception option
  - women's liberation and 69
- Pilots
  - evaluating pilots who may be impaired 344
- Ping Fan
  - Japanese biomedical experimentation site 478, 483
  - photographs from Ping Fan Museum 503
- Pinson, Gen. Ernest A.
  - human radiation experiments and 569
- Plague
  - Japanese biomedical experimentation on 478, 483, 484
  - postwar epidemics of 487
- Planning for Health Service Support* 374, 375
- Plato
  - justice principle and 37
  - natural law theory 32
  - "virtue" definition 14
  - virtue theory 64
- PLO. *See* Palestine Liberation Organization
- Ploetz, Alfred
  - classification of Jews 408
- Plutonium research
  - on human subjects 439, 524, 528
- Poland
  - American-Polish Relief Expedition to eliminate typhus in 778
- Political pacifism case study 260
- Polonium research
  - on human subjects 525
- Portugal
  - belligerent status and 231
- Post, S.G.
  - psychotherapy and middle class values 712
- Postmodernism
  - antifoundationalism and 7, 17
  - condition of possibility (exhibit) 40
  - Hippocratic Oath 7
  - historical basis 71
- Posttraumatic stress disorder
  - combat stress breakdown and 179
  - health problems related to 734
  - humanitarian assistance and 825
  - legitimacy of the diagnosis of 724, 735
- The Power Game* 212
- POWs. *See* Prisoners of war
- Pregnancy
  - as a reason for discharge of female military personnel 727
  - possibility of as a justification for excluding women from research 556
- "Preparation of Nurses for Participation in and Utilization of Research 679
- Presbyterian Church
  - Society for Health and Human Values funding 74
- Presidential Advisory Committee on Gulf War Veterans' Illness
  - criticisms of the military's recordkeeping accuracy 298, 300
- Presidential Commission on Radiation Experimentation
  - empirical surveys regarding military medical experiments and informed consent 122
- President's Commission for the Protection of Human Subjects in Research
  - Belmont Report* 36
- President's Commission for the Study of Ethical Problems in Medicine and Biomedical Behavioral Research
  - creation of 73
- President's Commission on the Study of Ethical Problems in Medicine
  - care of the terminally ill and patients in the vegetative state 693
- Prevention of Communicable Diseases of Man-General* 568
- Priest, E.R.
  - goal of ethics consultants 77
- Principles of Biomedical Ethics* 36
- Principlism
  - American moralism movement and 693
  - criticisms of 37
  - cultural neutrality and 37

- ethics workups and 36
- euthanasia ethical analysis 389
- four-principle approach 36, 71, 389, 693
- limitations 37
- normative ethics 38, 70
- principle-based ethics of Western cultures 693
- strengths 36
- truth-telling case study and 38
- weaknesses 37
- Prisoners of war
  - Bushido and treatment of 470, 471
  - case studies 131, 154, 391
  - collaboration with the enemy 144
  - discipline in camps 236
  - Geneva Conventions and 225, 236, 316, 380, 394
  - hierarchy of treatment and 316, 319
  - humane treatment of 174
  - Japanese biomedical experimentation on 487
  - Japanese warrior code of *Bushido* and treatment of 470
  - living conditions for 236
  - overidentification with one's unit and 319
  - physician participation in interrogation of 394, 757
  - prohibition of reprisals against 236, 238
  - protection of 236
  - removal from combat area 236
  - retention of medical personnel 746, 752
  - right to survive capture 236
  - the terrified wounded POW case study 391
  - torture and 154, 317
  - U.S. military regulations against using as human research subjects 587
- Privacy issues. *See also* Confidentiality issues
  - DNA samples 860
  - Philippine females' privacy and modesty issues 711
- Pro-fession and the physician's implicit promise to help 12, 13
- Professional military ethic. *See also* Military professionals
  - American professional military ethic 141
  - commitment to the welfare of one's fellows and subordinates 146
  - context of military experience and 144
  - courage element 142
  - double-effect principle 153
  - functional requirements 138
  - fundamental values of American Society and 143, 148, 151
  - guidelines for 147
  - initiative and 146
  - integrity and 144
  - limitations on individuals and 148
  - loyalty element 141, 142, 144
  - moral dilemmas of leadership and 152
  - pluralism and 148
  - professional values 142
  - religious tradition and 146
  - selfless service element 144, 145
- Programmatic environmental impact statements
  - military biomedical research and 543
- Project Ten
  - description 27
- "Project Whitecoat" biological weapons program 527
- Prospective studies
  - description 583
- Protestant tradition of medical ethics 10
- Protocols I and II
  - criteria for justifying medical procedures 755
  - definition of medical personnel 744
  - definition of wounded and sick 744
  - denouncing of, or informing on, wounded members of enemy forces or resistance movements 745
- medical aircraft and 749
- medical ethics and 752
- medical records and 755
- "medical unit" definition 751
- patients' right to refuse surgery 758
- provisions 743
- rights of medical personnel 745
- special signals displaying the red cross 748
- Providing feasible medical care to indigenous populations in a combat zone
  - case study 818
- Prudence character trait of physicians 15
- Pruitt, Col. Basil
  - combat surgery quote 399
- Prussia. *See also* Germany
  - development of military forces 135
  - lowering of class barriers for officers appointments 236
- Psychiatric disorders. *See also specific disorders*
  - counseling and treating suicidal soldiers 350
  - euthanasia for the mentally ill in Nazi Germany 413, 414
  - humanitarian assistance and 823
  - involuntary hospitalization and 349
  - Japanese experimentation with *Rickettsia tsutsugam shi* on mental patients 495
  - meeting the clinical needs of soldiers with 350
  - patients with HIV and 349
  - removing mentally unstable soldiers from combat 342
  - return to duty and 300, 316
  - Rickettsia tsutsugam shi* on mental patients 495
  - somatization disorder 336
  - starvation of German mental patients 414
  - survivor guilt and 315
- Psychiatry
  - confidentiality issues effect on ability to treat patients 319
- Psychological studies
  - physician-assisted suicide 114
- Psychology
  - contributions to descriptive ethics 109
- PTSD. *See* Posttraumatic stress disorder
- Public policy medical ethics
  - age-based rationing and 34
  - institutional policies 35
  - issues addressed 34, 35
  - legislation 35
  - regulations 35
- Pyridostigmine bromide
  - female soldier dosage rates 556
  - investigational use of for "pretreatment" of the effects of nerve gas 297, 313, 378, 538, 549, 573, 857
- "Pyridostigmine Used as a Nerve Agent Pretreatment Under Wartime Conditions"
  - article in the *Journal of the American Medical Association* 573
- Pythagorean corpus
  - influence on clinical ethics 64

## Q

- Q Program*
  - secret plane development 211
- Qualitative research
  - communications research 119
  - Delphi panels 119
  - ethnographic analysis 119
  - focus groups 119
  - participant observation 118
- Quinlan Case



description 88, 94  
public concern for violations of patients' rights 73

## R

- Rabaul, New Britain  
Japanese biomedical experimentation site 488, 490
- Rachford, B.K.  
dysentery research 514
- Racial hygiene movement  
as a primary research goal 410  
blood group studies 410  
in the German medical community 409  
increasing anti-Semitism and evolving biological determinism 408  
preventive care for the German germ plasm 419  
social Darwinism and 407  
twin studies 410
- Racial issues  
exclusion of minorities from military biomedical research 556, 579
- Racism  
in Japan 470  
in the United States 471  
worldwide nature of 440, 471
- Radoiu, M.  
patient triage on a MEDCAP mission 816
- Ramm, Rudolf  
medical ethics text 419
- Ramsey, Paul  
American moralism 693  
Christian ethical principle introduction 71  
principle of discrimination 241
- Randomized clinical trials  
assessment of the quality of 120
- Randomized controlled trials  
description 583
- Rangoon  
Japanese biomedical experimentation site 481
- Rascher, Sigmund  
execution of 447  
hypothermia and hypoxia research 442, 459
- Rationing of care  
physicians and 17, 34, 37, 867
- Raud, Jacob F.  
combatant role 303
- Rawls, J.  
contractarian theory of justice 37
- Reagan, Pres. Ronald  
counterinsurgency movements in Central America 783  
Executive Order on Intelligence Activities 526  
sending of a U.S. Army medical mobile training team 793
- Reche, Otto  
German Society for Blood Group Research founder 410
- Red Cross emblem  
illegal and commercial use of 743, 749
- Reed, Maj. Walter  
yellow fever research 511, 568
- Reemtsma, Keith  
transplantation of chimpanzee kidneys into human p 520
- Reflective equilibrium  
external morality and 10
- Regan, T.  
animal experimentation views 554
- Registered Nurse Student Program  
eligibility of men for 667
- Regulations in Time of Armed Conflict  
international recognition of 753  
text 767
- Reichart, J.F.  
separatism 202
- Rein, Dr. F.  
criticism of Nazi human experiments 448
- Religious and cultural considerations in military  
a-religious caregivers 712  
American moralism 692, 710  
America's religious traditions 691  
caregiver guidelines 711  
caregiver resources 714  
causes of disease as a cultural issue 701  
conflicts arising from 710  
coping with long-term and terminal illness 697  
cultural concepts of health 701  
cultural considerations in healthcare provision 700  
cultural differences in end-of-life care 712  
cultural world views 700  
culture characteristics 700  
culture of military healthcare 702  
culture of physicians 703  
development of an awareness of the potential conflicts in healthcare 711  
dietary practices 699  
documented medical and psychological benefits of religious beliefs 696  
does healthcare possess religious values that affect patient-care decisions? (exhibit) 690  
effects of religious and spiritual commitment on survival 697  
"etiology of disease" of Western medicine 702  
expressions of religious beliefs 698  
faith healers 695  
five basic human problems 700  
garments 699  
healing systems 702  
hidden nature of 689  
holistic health paradigms 702  
holy days 699  
"honest broker" caregivers 712  
importance of understanding diversity 690  
major dimensions of religion 698  
major subcultures in healthcare 703  
managed care subculture 705  
medicine and nursing subculture 703  
mixed agenda and 702  
one's own religious or cultural values 712  
patient autonomy 712  
potential for conflict 710  
prayer 698  
principle-based ethics of Western cultures 693  
religious beliefs and values 694  
religious beliefs and values of the American patient 694  
religious considerations in healthcare provision 691  
religious culture's influence on Western medicine 693  
religious symbols 699  
religious-cultural view of wellness and illness 706  
seeing patients as individuals rather than stereotypes 711  
Western culture's influence on other nations 694  
Western view of science 693
- Religious garments 699
- Religious symbols 699
- Rommelink Commission  
euthanasia report 393
- Research. *See also* Empirical research on medical ethics; Human experimentation; Human volunteers in military biomedical research; Informed consent; *specific types of research*

- acquiring prejudicial information while conducting medical research 351
- children's participation in 42
- conducting appropriate research (exhibit) 453
- growth of public interest in ethics and 724
- Guidelines for Research 36
- institutional review boards 36, 313
- nurses' role in 679
- participation of physician-soldiers in militarily useful research and development 304, 313
- President's Commission for the Protection of Human Subjects in Research 36
- public policy medical ethics and 35
- recordkeeping accuracy and 298, 315
- Resocialization
  - All Volunteer Force and 722
  - contrast with continuous socialization 722
  - "democratization of risk" and 723
  - inclusion of previously excluded groups 731
  - institutional/occupational thesis 722
  - integration of the family and the military and 723
  - military medicine and 723
  - of new recruits 722
  - prevention of alcohol, tobacco, and drug use by military personnel 727
- Resolutions of the Geneva International Conference, October 1863 text 763
- Resources in ethics
  - Bioethicsline 121
  - Internet listings for bioethics research 121
  - National Reference Center for Bioethics Literature 121
- Retirees. *See also* Veterans
  - healthcare programs for 728
  - past, present, and future of healthcare for retirees and family members (exhibit) 730
- Return to duty considerations
  - arguments for and against the enforcement treatment for individual soldiers 378
  - beneficence principle 376, 378
  - combat stress breakdown 300, 316, 335, 373
  - during the Cold War (exhibit) 375
  - "floodgate phenomenon" 334, 336, 342, 373, 860
  - informed consent and 374, 376
  - medical battlefield rules (exhibit) 377
  - minimally wounded soldiers 373
  - "preserve the fighting strength" principle 374
  - self-inflicted wounds and 373
- Revolutionary War
  - nurse's role 663
- Richard, Alfred Newton
  - CMR's policy on human experimentation 514
  - Committee on Medical Research head 513
- Rickettsia tsutsugamushi*
  - Japanese experimentation on mental patients 495
- Rift Valley Fever
  - vaccine for 539
- Right-to-die movement
  - libertarianism and 40
- Rister, Staff Sergeant Gary
  - example of how confidence based on trust can counteract isolation on the battlefield 177
- Ritalin®
  - action of 841
- Robb, Isabel Hampton
  - nursing ethics text 665
- Rock of Ages* 452
- Rockefeller Commission
  - investigation of clandestine testing by the CIA and the Department of Defense 526
- Rockefeller, Vice Pres. Nelson
  - investigation of clandestine testing by the CIA and Department of Defense 526
- Rollerblading example of the harm principle 254
- Rollins, Dr. A.E.
  - "Tucker Telephone" design 395
- Roman Catholicism. *See* Catholic Church
- Roman Empire
  - area controlled 133
  - bellum justum* doctrine 223
  - combat practices 223
  - role of professional soldiers 133
  - role of the military in Roman society 134
- Romberg, Dr. Hans Wolfgang
  - hypoxia research 443
- Roosevelt, Pres. Franklin D.
  - Office for Scientific Research and Development establishment 513
- Rose, Gerhard
  - experimental vaccines against spotted fever 416
- Rosen, L.N.
  - study of sexual abuse in the U.S. Army 191
- Rosen, S.
  - postmodernism argument 7
- Ross, W.D.
  - prima facie principles 7, 30, 36, 37, 71
- Roter, D.L.
  - conversational analysis technique 119
- Rüdin, Ernst
  - Kaiser Wilhelm Institute for Genealogy director 410
- Ruff, Dr. Siegfried
  - hypoxia research 443, 444
- Rules Governing the Care of Sick and Wounded, Particularly in Time of Conflict
  - international recognition of 753
  - text 767
- Rush, Dr. Benjamin
  - demystification of medicine and 273
- Russia. *See* Former Soviet Union
- Russo-Japanese War
  - lack of atrocities by the Japanese during 470, 472
- Rwanda
  - Canadian peacekeeping forces in 825, 828
  - genocide in 828
- Ryle, John A.
  - withholding service from the Armed Forces and the end of war 309, 322

## S

- Saikewicz Case 88, 96
- San Francisco, CA
  - surreptitious release of *Serratia marcescens* over 527
- Sargon of Agade
  - wars fought 133
- Sato Shunji, Gen.
  - Japanese biomedical experimentation role 481
- Schiedermayer, D.
  - clinical ethics rules 47
- Schilling, Dr. Klaus
  - medical research 452
- School of Aerospace Medicine, Brooks, Air Force Base, TX
  - nursing research literature 680
- Schultz, Eda
  - radiation experiments subject 525

- Scott, W.J.  
 homosexuality in the military 729  
 politics of readjustment of Vietnam veterans 725  
 posttraumatic stress disorder diagnosis and 735  
 reasons that healthcare issues are important for the readjustment of the veteran 733  
 sociology of veterans' issues 734, 736
- Sea-Launched Ballistic Missiles  
 agreements on the reduction or elimination of 235
- Seabed Arms Control Treaty  
 provisions 235
- Searle, John  
 fact/value distinction 110
- Security Assistance Program  
 funding for training to a host nation 775
- Security clearances  
 homosexuality and 352
- Seelkoph, Dr. K  
 hypothermia and hypoxia research 442
- Segal, M.W.  
 spouse support as a predictor of career commitment among married men in the military 729
- Self-Determination Act of 1991 101
- Seldin, D.  
 medicine as applied biology 71
- Senate Veterans' Affairs Committee  
 efficacy and safety of the anthrax vaccine 299
- Sencer, Dr. David  
 Tuskegee Syphilis Study and 520
- Seneca  
 influence on clinical ethics 64
- Separation anxiety  
 case study 347
- Separatism. *See* Classic separatism; Extended separatism; Paternalistic separatism
- September 11 terrorist attacks  
 vulnerability of United States and 320
- Serbia  
 "ethnic cleansing" 228
- Serratia marcescens*  
 surreptitious release of into the Pentagon's air-conditioning system, on naval vessels, and over San Francisco 527
- Seventh Day Adventists  
 biological weapons testing on members serving in the military as noncombatants 527  
 life expectancy 697
- Sexual abuse  
 female military personnel and 727  
 military culture and 190
- Sexual harassment  
 women in the military and 726
- Sexual intercourse with patients  
 contemporary philosophers and 7
- Sexual preference. *See* Homosexuality
- Sexually transmitted diseases. *See specific diseases*
- Shalala, Donna  
 creation of the Office for Human Research Protection 521
- Shannon, James  
 protection of research subjects and 519
- Shay, J.  
 "character" definition 159  
 destruction of a combatant's character in a moral vacuum 278
- Sheehan, M.N.  
 problem solving in clinical ethics 47
- Shigella*  
 Japanese experimentation on unsuspecting soldiers 495
- Shimkin, Michael  
 protection of research subjects and 519
- Shinto faith  
 Emperor as a living god 471
- Sidgwick, Henry  
 overriding of veracity by beneficence 65, 71
- Siegler, M.  
 clinical ethics definition 63  
 clinical ethics education beliefs 79  
 clinical ethics research elements 79  
 concept of good clinical medicine 63  
 ethical teaching rounds on the Obstetrical Service of the Toronto Western Hospital 83  
 ethics committees and 78  
 four-dimension grid for clinical ethics 50  
 medical model for clinical ethicists 75  
 moral pluralism 46  
 process-oriented philosophy of medicine 71  
 teaching clinical ethics at the bedside 63
- Silver, Dr. Henry  
 education of nurse practitioners 667
- Singapore  
 Japanese biomedical experimentation site 481
- Singer, Peter  
 animal experimentation views 553
- Singer, Peter A.  
 clinical ethics education beliefs 79  
 clinical ethics research elements 79  
 ethical teaching rounds on the Obstetrical Service of the Toronto Western Hospital 83  
 medical model for clinical ethicists 75
- Singer, Prof. Dr.  
 hypothermia and hypoxia research 443
- Single Project Assurances  
 filing requirements 581
- Situational pacifism  
 case studies 260, 304, 305, 307  
 contractual obligation to the state and 258  
 description 257, 259  
 morale of the unit and 258  
 resignation from the Army and 257, 307  
 unit cohesiveness and 257, 259  
 unit competence and 258, 259
- SLBMs. *See* Sea-Launched Ballistic Missiles
- Sledge, Eugene  
 following orders and 264
- Sleep deprivation  
 command decisions and 189, 190
- Sleep-inducing medications  
 addictive nature of 840  
 inherent coercion and 841  
 soldiers' alertness and 840
- Slippery slope arguments  
 types of 114
- SMEE. *See* Subject Matter Expert Exchange program
- Smith, A.M.  
 military medicine and combat preparedness 723
- Smith, Headrace 212
- Smith, K.V.  
 continuing education in ethics for nurses 677
- Social contract theory  
 normative ethics and 39
- Social Darwinism  
 Nazi movement and 407
- Societal influences and the ethics of military healthcare  
 complaints about care received in military medical facilities 728, 736  
 demographics of the military and 721

- distinction between disease, illness, and sickness and 733, 736
- gender considerations 725, 735
- general well-being and voluntary resocialization 721
- governmental policy and receipt of health care 724
- overview of societal influences 724
- past, present, and future of healthcare for retirees and family members (exhibit) 730
- radical movements and subsequent social change 724
- sexual preference 729
- veterans' healthcare issues and the politics of eligibility 733
- Society for General Internal Medicine
  - establishment of 74
- Society for Health and Human Values
  - organization of 73
- Society for Law and Medicine 74
  - establishment of 74
- Society for Social Responsibility in Science
  - advocacy of personal moral responsibility 535
- Sociology
  - contributions to descriptive ethics 108
  - partial codes and 108
  - participant-observer studies 109
  - President's Commission study of informed consent in clinical practice 109
  - questions about normative claims and 116
- SOCOM. *See* Special Operations Command
- Socrates
  - merits of virtue 31
- Sodium Amytal®
  - uses in interrogation 397
- Soldiers. *See* Military professionals
- Somalia
  - ground troops in (exhibit) 799
  - leaving Somali patients behind after withdrawal of U.S. forces 823
  - Operation Restore Hope 184, 819
  - United Nations request for military humanitarian assistance 798
  - use of nonlethal weapons during withdrawal from 833
- Sonata®
  - action of 840
- South Africa
  - belligerent status and 231
- Southam, Chester
  - cancer research 520
- SOUTHCOM. *See* Southern Command
- Southeast Asia. *See also specific countries*
  - implementation of civic action programs 780
  - Japan's use of racism to justify imperial adventures in 471
- Southern Command
  - description (exhibit) 784
  - humanitarian/civic action assistance programs 783, 785, 791
- Soviet Military Power*
  - portrayal of Soviet power in a "worst case scenario" 204
- Soviet Union. *See* Former Soviet Union
- Spanish-American War
  - nurses' role 664
- SPAs. *See* Single Project Assurances
- Special Operations Command
  - establishment of 780
  - nation-building role (exhibit) 781
- SSBCOM. *See* U.S. Army Soldier Systems Biological and Chemical Command
- St. Germaine, Arthur
  - posthumous pardon for 515
- St. Louis, MO
  - surreptitious release of bacterial agents over 527
- Stanley, James
  - lysergic acid diethylamide research subject 570
  - spouse support as a predictor of career commitment among married men in the military 729
- Stanley, S.C.
  - homosexuality in the military 729
- START. *See* Strategic Arms Reduction Treaty
- Statement on Physician-Assisted Suicide
  - international recognition of 753
  - text 770
- Stein, Dr.
  - review of Rascher's work 447
- Steinberg, Surgeon General George M.
  - Nurse Corps and 664
- Stelling, H.G.
  - returning sick soldiers to duty 339
- Sterilization Law. *See* Law for the Protection of Genetically Diseased Offspring
- Stevens, Albert
  - plutonium research subject 525
- Steven's Amendments
  - humanitarian assistance and 789, 792
- Stewart, William
  - protection of human research subjects and 520
- Stimpson, Secretary of War Henry L.
  - biological warfare test support 527
- Stimson, Maj. Julia C.
  - Army School of Nursing Dean 665
- Stimulant medications
  - action of 841
  - adverse symptoms 841
  - combat pilots and 841
  - inherent coercion and 841
- Stollerman, Eugene
  - Tuskegee Syphilis Study and 520
- Stone, Dr. Robert
  - plutonium research 525
  - secrecy of research and 528
- Strategic Arms Reduction Treaty
  - ballistic missile reduction 235
- Strategic bombing
  - World War II and 239, 241, 307
- Strong, Richard P.
  - cholera and beriberi research on Phillippine priso 511
- Strughold, Dr.
  - knowledge of Nazi human experiments 448
- Study on Military Professionalism*
  - ethical bankruptcy of the Army culture and 182
  - supplanting of integrity with careerism and "looking good" 163
- Sturm, S.R.
  - separatism 202
- Suarez, Francisco
  - war-conduct law and 224
- Subcommittee on National Security, Veterans Affairs and International Relations
  - criticism of the Anthrax Vaccine Immunization Program 300
- Subject Matter Expert Exchange program
  - description (exhibit) 775
  - Latin American Cooperative Fund support 775
- Substance abuse. *See also* Alcoholism
  - DoD policy on 726
  - religious beliefs and 696
  - reporting requirements 351
  - reporting soldiers with minimal substance abuse problems 346
  - U.S. studies of drug abuse on prisoners 513



- Substituted judgement theory  
 patient autonomy and 115
- Succinylcholine  
 uses in interrogation 396
- Suicide. *See also* Physician-assisted suicide  
 counseling and treating suicidal soldiers 350
- Sullivan, Gen. Gordon  
 view of the Army as being in a perpetual state of change 163
- Sulmasy, D.P.  
 education of house officers in clinical ethics 79
- Sumerian Empire  
 state-army symbiosis 133
- Surplus Property Law  
 disaster relief and 778
- Surrogate motherhood  
 Baby M Case 88, 99
- Surveys  
 criteria for assessing the quality of 117  
 criteria of methodological rigor in survey research 116  
 Cronbach's  $\alpha$  test 117  
 design for 117  
 pilot testing 117  
 Presidential Commission on Radiation Experimentation  
 surveys on military medical experiments and informed consent 122  
 random sampling 117  
 statistical analysis of 117  
 uses of in ethics 110, 116
- Survivor guilt  
 case study 356  
 combat stress breakdown and 315, 336
- Swan, K.G.  
 ethical dilemmas of triage 297
- Swan, K.G., Jr.  
 ethical dilemmas of triage 297
- Swann, Dr. Steve  
 scenario of the ethical dilemmas facing the military physician 384, 388
- Swann scenario 384, 388
- Sweden  
 citizen armies 135
- Swine flu vaccine  
 potential risks of mass administration 300
- Syphilis. *See* Tuskegee Syphilis Study
- ## T
- Tailhook scandal  
 description 207
- Tailoring the organizational response to the local need  
 case study 818
- Takeda Tsuneyoshi, Prince (Japan)  
 biomedical experimentation role 469
- Tarasoff Case 37, 88, 95
- Taylor, C.  
 clinical ethics definition 63
- Taylor, Frederick  
 interchangeability of personnel 166
- Taylor, Gen. Maxwell  
 Armed Forces Assistance to Korea and 780
- Taylor, Telford  
 Nuremberg Doctors' Trial statement 405
- Teaching and Evaluation of Interpersonal Skills and Ethical Decisionmaking in Pediatrics* 74
- Telemedicine  
 electronic medical records and 839  
 use within the military 838
- Teleology  
 animal experimentation and 553, 554  
 description 28, 33  
 strengths 28  
 virtue theory 32  
 weaknesses 28
- Telepresence surgery  
 data transmission concerns 839  
 description 839  
 perception of the wounded soldier and 840
- Temazepam  
 action of 840
- Terrorism  
 biological weapons and 537  
 emergence of 782
- Terry, Luther  
 protection of human research subjects and 520
- The Case for Animal Rights 554
- The Commander's Handbook on the Law of Naval Opera 143
- "The Final Solution"  
 link between euthanasia and 415  
 Wannsee Protocol text 431
- The ghetto hospital  
 case study 387
- The Law of Land Warfare  
 ammunition restrictions 232  
 refusal to obey illegal orders and 141  
 sanctions for violations of international law 238  
 torture restriction 154
- The Netherlands  
 euthanasia and 109, 114, 393
- The Patient as Person: Explorations in Medical Ethics* 71
- The Pentagon Papers 162
- "The pill" contraception option  
 women's liberation and 69
- The Sea and Poison* 468
- The Soldier and the State* 202, 205
- The terrified wounded POW  
 case study 391
- The Uniform Code of Military Justice  
 professional military ethic and 141  
 sodomy and 150
- Theodosius, Emperor  
 acceptance of Christianity as the Roman Empire's official religion 223
- Theory and Practice in Medical Ethics* 47
- Therapeutic privilege concept 65, 67, 84, 338
- Thermal research. *See* Nazi hypothermia and hypoxia research
- Third World countries. *See also specific countries*  
 biological weapons and 543
- Thirty Years War  
 European law of nations and 224
- Thomas Aquinas, Saint  
 analysis of war 224  
 goodness of actions principle 32, 34  
 influence on clinical ethics 64  
 principle of discrimination and 241  
 prudent judgement or practical wisdom and 15  
 theological ethics 10  
 wisdom of the government passing laws regarding moral life 111
- Thomas, Lewis  
 medical education in the 1930s 273
- Thomasma, D.C.  
 beneficence-in-trust principle 40  
 collective ethics and 284  
 contextual grid for clinical ethics 47

- experimental methods and bioethics 120
- phenomenological philosophy of medicine 71
- unitary theory of medical ethics 47
- virtue ethics for physicians 693
- Threshold Test Ban Treaty
  - provisions 235
- Thurman, Gen. Maxwell R.
  - combat stress control teams 180
  - evaluation of medical military civic action (exhibit) 788
  - humanitarian assistance role 788
  - lack of long-term development plan for Panama 184
- Timothy E. Quill, "Jane Roe," et al Case 88, 102
- Tobacco use
  - DoD policy on 726
- Tojo Hideki, Prime Minister (Japan)
  - postwar portrayal of 491
- Tokyo Trials
  - criticisms of 239
- Toronto Western Hospital
  - ethical teaching rounds on the Obstetrical Service 83
- Torrey, E.
  - religious beliefs influence on psychiatric practice 712
- Torture
  - case studies 396
  - physician involvement in 395, 757
  - physician-soldiers and 305, 317
  - psychological 316
  - restrictions against 154
  - selection and training of torturers in Greece 396
- Total institutions
  - feigning illness and the "floodgate" effect 334
  - medical ethics and 298, 306, 324, 334
- Total Quality Management
  - description 208
- Totally Artificial Heart Assessment Panel
  - ethical and moral implication assessment 693
- Toulmin, S.
  - casuistry as principlism's chief opponent 693
- Toulmin, S.E.
  - casuistry definition 63
- TQM. *See* Total Quality Management
- Training. *See also* Education
  - accidents during 168
  - basic training for physician-soldiers 271
  - bonding and 213
  - confidence and 176
  - hatred of the enemy as a goal of 173
  - isolation and 213
  - safety officers and 168
- Treatise of Human Nature* 110
- "Treatment of Shock from Prolonged Exposure to Cold, Especially in Water 441, 459
- Tri-Service Nursing Research Program
  - description 680
- Triage
  - "double effect" and battlefield triage 300
  - Emergency War Surgery* guidelines (exhibit) 382
  - establishing and maintaining prioritization of treatment 381
  - ethical dilemmas 297, 300, 313
  - hierarchy for 301
  - maintaining equity between soldiers 341
  - military role-specific ethical situations 340
  - models of triage 381, 383
  - nurses and 674
  - sacrificing of individual interests when necessary for the military mission and 341
  - triage concept 380
  - unethical basis of physicians making triage decisions 868
- Triangle Institute for Security Studies
  - poll showing the public's tolerance for military casualties 835
- TRICARE healthcare program 728
- Trice, Robert
  - military and mass media relationship 208
- Truth-telling case study
  - beneficence-in-trust principle and 41
  - deontology and 30, 31
  - feminist ethics and 43
  - narrative ethics and 43
  - principlism and 38
  - resolution of truth-telling case according to specific theories (exhibit) 53
  - unidimensional grid for clinical ethics and 48, 50
  - unitary theory and 53
  - utilitarianism and 29
  - virtue theory and 32
- Tuberculosis
  - vaccine testing on Colorado prisoners 513
- "Tucker Telephone" torture method 395
- Turkey
  - obligation of military doctors to give priority to the chain of command above the medical code of ethics 305
- Tuskegee Syphilis Study
  - description 474, 513, 520
  - ethical violations of 513
  - monetary compensation for participants and their families 474
  - public disclosure of 510
  - public reaction to 73
  - "surrogate informed consent" 520
  - termination of 510
- Twin studies
  - in Nazi Germany 410
- Typhoid
  - Japanese pathogen tests on civilians 486, 487
- Typhus
  - American-Polish Relief Expedition to eliminate 777

## U

- U.S. Agency for International Development
  - Bureau for Program and Policy Coordination role in humanitarian assistance 791
  - Developmental Assistance Program creation 782
  - humanitarian assistance role 782, 800, 808
  - Office of Foreign Disaster Assistance 808
- U.S. Air Force
  - acceleration and high-gravity response research 593
  - continuing education in ethics for nurses 678
  - humanitarian assistance funding 799
  - Nurse Corps 666
  - nursing research 680
  - percentage of women in 726
  - scientific reviews of human biomedical research 587
  - studies of radioactive clouds 569
  - Values 142
- U.S. Army. *See also* All Volunteer Force; Army Medical Department
  - as a nondemocratic, absolutist system 253
  - biological warfare tests in America 526
  - Center for Health Promotion and Preventive Medicine 528
  - Civil Affairs Office 779
  - commissioned officer status for registered nurses 666
  - conscientious objection and 257
  - development of the DIVAD air defense system 212

- humanitarian assistance funding 799
- individual liberty and the needs of 256
- mandate for 256
- Nation Building Contributions of the Army* 781
- necessity for "good order" and 256
- Nursing Research Advisory Board 680
- paternalism and 256
- Phyllis J. Verhonick Nursing Research Symposium 680
- professional values
- scientific reviews of human biomedical research 587
- SOUTHCOM humanitarian assistance programs 783
- Special Forces civic action mission 780
- Special Operations Command 780
- U.S. Army Medical Research and Development Command
  - breast cancer research program 557
- U.S. Army Medical Research and Materiel Command
  - management of appropriations 557
- U.S. Army Medical Research Institute for Infectious Diseases
  - vaccine, drug, and diagnostic test development 593
- U.S. Army Personnel Command
  - human volunteers in military biomedical research and 597, 600
- U.S. Army Research Institute of Environmental Medicine
  - assignment to 597
  - effects of pyridostigmine bromide research 594
- U.S. Army Soldier Systems Biological and Chemical Command
  - environmental research and development of protective clothing 593
  - informed consent procedures 571
  - provision of military training and physical fitness programs and monitoring for research soldier-volunteers 600
- U.S. Atomic Energy Commission
  - plutonium research and 524
  - policies to forestall access to information relating to health risks that radiation posed to workers and to the public 528
  - public relations and secrecy 528
  - written consent for human research subjects 525
- U.S. Central Intelligence Agency
  - humanitarian assistance role 782
  - "mind-altering" substances research 525
- U.S. Congress. *See also specific legislation*
  - Defense Women's Health Research Program establishment 555
  - Developmental Assistance Program creation 782
  - funding for low-intensity conflict programs in Central America 785
  - human experimentation subject protection 521
  - humanitarian assistance programs and 775, 789
  - monitoring of military biomedical research 543
  - public policy medical ethics issues 35
  - rotation of U.S. military medical personnel in El Salvador 795
- U.S. Constitution
  - Fourteenth Amendment 69
  - military professionals commitment to 276
- U.S. Department of Defense
  - anthrax vaccination of troops 299, 337
  - authorization to fund a wider variety of humanitarian assistance/civic action programs 799
  - beginnings of the DoD humanitarian mission in Central America 785
  - breast cancer research program 557
  - commissioning of male registered nurses 667
  - Common Rule and 581, 587
  - DNA repository 860
  - DoD points of contact for multiple project assurances (exhibit) 580
  - formalization of the humanitarian assistance role 788
  - gas warfare agent research involvement 514
  - HIV/AIDS policy 731, 732
  - human experimentation policy 521
  - Humanitarian Task Force 786
  - included humanitarian assistance programs 799
  - medical care for research subjects 588
  - National Security Strategy initiatives 786
  - negative connotations of the nation-building role 788
  - Office of Humanitarian Assistance, OPR: OSD/ISA (Global Affairs) 788, 799
  - patient record confidentiality 589
  - Persian Gulf War illnesses and 725
  - policy clarifying four possible uses of DNA 860
  - policy for the conduct and review of human subjects research 535, 547
  - policy on prevention of alcohol, tobacco, and drug use by military personnel 726
  - protection of people in foreign countries from HIV/AIDS infection by service persons 732
  - recommendation for expansion of the civic action programs in underdeveloped countries 779
  - request for a waiver permitting military use of investigational drugs and vaccines without informed consent 297
  - rotation of the U.S. military medical personnel in El Salvador and 795
  - soldiers with HIV infection and protection of third parties 349
  - special compensation programs 596
  - The Wilson Memorandum: formalizing the use of human volunteers in Department of Defense experimental research (exhibit) 523
  - TRICARE healthcare program 728
  - waiver of informed consent for the use of investigational drugs and vaccines 538, 549, 550
  - Wilson Memorandum: formalizing the use of human volunteers' health needs study 726
- U.S. Department of Energy
  - human radiation experiments and 523
- U.S. Department of Health and Human Services
  - anthrax vaccination of troops and 337
  - assurance filing requirements 581
  - Common Rule codification 581
  - human subject research definition 581
  - institutional review boards report 521
  - public policy medical ethics considerations 35
- U.S. Department of Justice
  - anthrax vaccination of troops and 337
- U.S. Department of State
  - humanitarian assistance program approval 791
  - humanitarian assistance role 776, 808
  - Protocols I and II reservations 753
  - rotation of U.S. military medical personnel in El Salvador and 795
- U.S. Department of Veterans Affairs
  - finite resources and veteran healthcare issues 735
  - public policy medical ethics considerations 35
- U.S. Food and Drug Administration
  - AIDS treatment licensing 731
  - basic responsibility of 551
  - public policy medical ethics considerations 35
  - waiver of informed consent for investigational drugs and vaccines 297, 313, 337, 538, 549, 550, 573
- U.S. General Accounting Office
  - criticism of DoD for expanding appropriations for humanitarian/civic assistance missions 788
  - monitoring of military biomedical research 543
  - procedures for exchanging sensitive medical data while

- preserving confidentiality 589
  - report of the exclusion of women from research 555
- U.S. Information Service
  - humanitarian assistance role 782
- U.S. Marine Corps
  - percentage of women in 726
- U.S. Navy
  - compensation for volunteers 596
  - Core Values 142
  - decompression impact research 593
  - design for the DD-21 submarine 208
  - humanitarian assistance funding 799
  - Lazarus Project sponsorship and funding 844
  - medical care for research subjects 588
  - mustard gas experiments 568
  - Nurse Corps (female) establishment 665
  - nursing research 680
  - "relative rank" for nurses 666
  - scientific reviews of human biomedical research 587
  - study using prisoners as San Quentin to test an influenza vaccine 568
- U.S. Office of Management and Budget
  - anthrax vaccination of troops and 337
- U.S. Public Health Service
  - humanitarian assistance role 778
  - St. Louis encephalitis research on prisoners 513
  - transplantation of chimpanzee kidneys into human patients 520
  - Tuskegee Syphilis Study and 510, 512, 520
  - United States Cadet Nurse Corps establishment 666
- U.S. Veterans Administration
  - compensation for health injuries resulting from ga 514
  - medical care for research subjects 588
  - Persian Gulf War illnesses and 725
- Ueda Yataro
  - pathogen effects research role 483
- Umezawa Hamao
  - Japanese National Institute of Health role 494
- Umii to Dokuyaku* 468
- UN. *See* United Nations
- Un Souvenir de Solferino* 741
- Understanding cultural needs of patients
  - case study 824
- Underwood, Col. George
  - U.S. military human experimentation policy and 521
- Unidimensional grid for clinical ethics
  - three realms of ethics and 48
  - truth-telling case study and 48, 50
- The Uniform Code of Military Justice*
  - "conduct unbecoming an officer" 272
  - professional military ethic and 272
  - sodomy and
- Unit status reports
  - military culture and 181
- Unitary theory
  - clinical ethics rules and 47
  - description 46
  - truth-telling case study and 53
- United Kingdom
  - class-based standards for officer commissioning 136
  - honor concept and 170
  - naval strength 136
  - "organ stripping" scandal 452
- United Nations
  - condemnation of the use of nuclear weapons 234
  - Declarations of Human Rights 32
  - establishment of 225
  - humanitarian assistance role 798, 808
  - International Criminal Court 239
  - International Criminal Tribunal for Rwanda 239
  - International Criminal Tribunal for the Former Yugoslavia 239
  - military biomedical research reports to 543
  - nonmilitary sanctions 229, 306
  - Operation Restore Hope 184
  - revelation that Iraq had an active offensive biological and chemical weapons program 543
  - Serbian war against Croatia and Bosnia and 228
  - war crimes trials and 239
  - war-decisions law and 225
- United Nations Charter
  - actions taken in self-defense and 227, 228
  - assumption that collective security will deter threat to the peace and terminate them when they occur 226
  - assumption that peaceful means of conflict resolution will render war unnecessary 226
  - assumption that the main threats to peace are posed by interstate conventional wars 226
  - exceptions to the general principle of nonintervention in foreign affairs 227
  - provisions of Articles 42 and 51 227
  - Security Council enforcement actions 227, 228
  - Security Council use of armed force 227
  - war-decision law and 226
- United States. *See also* Covert and deceptive American medical experimentation; *specific states, counties, and cities*
  - agreements on the reduction or elimination of specified types of nuclear missiles and warheads 235
  - American moralism 692
  - American professional military ethic 141
  - America's religious traditions 691
  - Atomic Bomb Casualty Commission's role in recording the progress of the Hiroshima survivors 495
  - biological warfare program initiation 492
  - "Blood for Britain" program 513
  - bombing of Hiroshima and Nagasaki 235, 239
  - Cold War role 492
  - covert and deceptive medical experimentation 509
  - deterrence-plus position on nuclear weapons 244, 245
  - distrust of standing armies 137
  - elements inherited from the British military tradition 137
  - establishment of permanent schools for advanced military education 137
  - gene therapy experiments 452
  - human cloning experiments 452
  - interest in Japanese World War II biomedical experimentation results 492, 510
  - Japanese medical school and United States medical school comparison 474
  - military assistance to El Salvador 783, 785
  - militia concept 137
  - miscegenation legislation as a model for German Nuremberg Laws 412
  - multicultural and pluralistic nature of 693, 710
  - "no first use" principle and 235
  - "Operation Paperclip" 452
  - paternalistic and moralistic laws 255
  - political system comparison to other nations 694
  - racism in 471
  - ratification of Geneva Convention Protocols I and II 744
  - ratification of the Geneva Gas Protocol 234
  - religious beliefs and values of the American patient 694
  - slow development of military professionalism 137
  - sterilization legislation model for Nazi Germany 411
  - treatment of soldiers without their consent 378



- Tuskegee Syphilis Study 474, 510, 512, 520  
 use of the Dachau data on hypothermia after World War II 448
- United States Cadet Nurse Corps  
 establishment of 666
- United States Code  
 humanitarian assistance and 808  
 military biomedical research and 548, 595  
 Secretary of the Army direction of medical care of anyone on active duty 853  
 treatment of soldiers without their consent 378
- United States Military Academy  
 boxing requirement 253  
 paternalistic practices 255  
 practice of borrowing from others 254
- University of California at San Francisco  
 plutonium research on human subjects and 525  
 protection of research subjects 525
- University of Chicago  
 Center for Clinical Ethics 82  
 plutonium research on human subjects and 524
- University of Cincinnati  
 human radiation experiments 525
- University of Minnesota  
 Clinical for Biomedical Ethics 82
- University of Rochester  
 plutonium research on human subjects and 524
- University of Tennessee  
 Department of Human Values and Ethics at the College of Medicine 82
- Uranium research  
 on human subjects 525
- Uruguay  
 military physicians' participation in torture 305
- USAID. *See* U.S. Agency for International Development
- USAMRIID. *See* U.S. Army Medical Research Institute for Infectious Diseases
- USARIEM. *See* U.S. Army Research Institute of Environmental Medicine
- USC. *See* United States Code
- Use of Volunteers as Subjects of Research* 572
- USIS. *See* U.S. Information Service
- USMA. *See* United States Military Academy
- Utilitarianism  
 animal experimentation and 553  
 deontology comparison 30, 31  
 description 28, 33  
 euthanasia ethical analysis 392  
 military role-specific ethical situations and 340, 341  
 strengths 28  
 truth-telling case study and 29, 53  
 weaknesses 28
- V**
- VA. *See* U.S. Department of Veterans Affairs
- Valium®  
 action of 842, 843
- Vanderbilt University  
 human radiation experiments 525  
 Medical Humanities Program 82
- Varmus, Dr. Harold  
 creation of the Office for Human Research Protection and 521
- Veatch, R.M.  
 applied ethics definition 72  
 ethical principles central to the Hippocratic tradition 273  
 normative ethics principles 38  
 principlism 36  
 social contract theory 39
- VEE. *See* Venezuelan equine encephalomyelitis
- Venereal disease. *See also specific diseases*  
 Japanese biomedical experimentation on 489  
 penicillin use for U.S. military personnel with venereal disease 383
- Venezuelan equine encephalomyelitis  
 vaccine for 539
- Versailles Treaty  
 war-guilt clause 224, 239
- Veterans. *See also* Retirees  
 constructivist perspective on health and 734  
 distinction between disease, illness, and sickness and 733, 736  
 finite resources available for healthcare and 733  
 healthcare issues and the politics of eligibility 733  
 objectivist perspective on health and 734  
 politics of readjustment of Vietnam veterans 725  
 sociology of veterans' issues 734, 736  
 variation in response to veterans of different conflicts 734
- Vietnam  
 civic action programs 780, 800  
 CORDS program success in 782
- Vietnam War  
 Agent Orange exposure 724, 733, 734  
 ammunition restrictions 232  
 authoritarianism and 189  
 cluster bombs and 232  
 disease as the cause of morbidity 539  
 Hamlet Evacuation System (exhibit) 161  
 having no clear war aim for 172  
 herbicide use 234  
 inappropriately evacuating casualties 373  
 lack of constitutional basis for 229  
 medical civic action programs and 782  
 medical students' pledge 309  
 napalm use 233  
 nation building and civic action after 782  
 nurses' role 667, 674  
 officers' technical competence and 166  
 otherworld experience of soldiers fighting in 278  
 patterns of deceit in US policy makers (exhibit) 162  
 politics of readjustment of Vietnam veterans 725  
 pot-shotting civilians from helicopters (exhibit) 178  
 practice of putting anti-aircraft batteries, artillery, and military vehicles in residential neighborhoods 243  
 principle of proportion and 240  
 probability of success and 229  
 short command assignments 166  
 Special Forces Aidmen role 304  
 student revolt of the late 1960's and early 1970's 69  
 tear gas use 234  
 Tet offensive 161  
 treatment of prisoners of war 236  
 triage during mass casualty situations 383, 384  
 using medicine as a weapon during 304, 317  
 veterans and non-Hodgkin's lymphoma 735  
 volunteer recruitment for the Natick, MA, program 572, 594  
 war crimes trials and 239
- Vietnam Women's Memorial  
 dedication of 663
- Virtue theories  
 applied medical ethics and 36  
 deontology comparison 32  
 description 31, 33, 34  
 "do good and avoid evil" principle 32, 33, 34  
 international rights and 32  
 strengths 32

- strong communities and 31
- teleology comparison 32
- temperance and courage examples 31
- truth-telling case study and 32, 53
- "virtue" definitions 14, 31
- weaknesses 32
- Virtues or character traits crucial to the patient-physician relationship 14
- Vitoria, Francisco de
  - war-conduct law and 224
- Vivisection. *See* Animal experimentation; Japanese biomedical experimentation during the World-War-II era
- von dieringshofen, Prof. Dr.
  - Rascher's work and 447
- von Verschuer, Otmar
  - Institute for Racial Hygiene director 410
- von Werts, Dr. R.
  - hypothermia and hypoxia research 442
- Voodoo belief system 701, 702
- Voorhees, T.S.
  - returning sick soldiers to duty 339
- Vulnerability of the patient
  - physician competence and 13
  - duties of the physician and 16

## W

- Wakamatsu Yujiro, Maj.
  - commendation from Emperor Hirohito 486
  - immunity from prosecution for medical experimentation on human subjects 490
  - Japanese biomedical experimentation role 480
  - Japanese National Institute of Health role 494
- Wakin, Col. Malham
  - My Lai massacre analysis 308
- Walla Walla (WA) State Prison
  - human radiation experiments 525
- Walter Reed Army Institute of Research
  - authoritarianism creation of an adversarial relationship 182
  - cognitive functioning decrements associated with sleep deprivation 189
  - Department of Nursing establishment 680
  - Military Nursing Practice and Research Course 680
  - research on the human dimensions of the Army on the development of high performance units and on resistance to combat stress breakdown 160
  - Tri-Service Nursing Research Program 680
- Walter Reed Army Medical Center
  - "Decisions Near the End of Life" bioethics education program 678
- Walzer, M.
  - double-effect principle 242
  - principle of discrimination 241
- Wannsee Protocol for "The Final Solution"
  - text 431
- War crimes trials. *See also* Nuremberg Doctors' Trials
  - abuse of 239
  - as a sanction against violations of international law 239
  - inability to take control of the alleged war criminals 239
- War of 1812
  - belligerent status principle and 231
- War Psychiatry 373, 826
- War Research Service
  - biological warfare tests 527
- War-conduct law
  - application of 246
  - belligerent occupation and 237

- chemical and biological agents and 233, 307
- chivalry principle 231
- consensus and 235
- contemporary legal and moral restraints on 230
- controlling the means and methods of warfare 232
- determination of belligerent status and 231
- disposal of the dead 237
- Geneva Conventions and 225, 231, 234, 236, 238, 246
- genocidal conduct 230
- Hague Conventions and 225, 232, 233, 236, 237, 246
- historical background 225
- humanity principle 231
- just war doctrine 225, 240
- Lieber Code and the Civil War 225, 246
- limitations of natural law and 230
- military necessity principle 230, 240
- minimization of "superfluous suffering" 232
- "no first use" principle 233, 235
- nuclear pacifists and 241
- nuclear weapon deterrence 234, 243, 246
- principle of discrimination and 231, 241, 306
- principle of double effect and 241
- principle of proportion and 240, 244, 306
- principles of 230
- protection of prisoners of war 236
- protection of the wounded and sick 237
- sanctions for violations of international law 238
- sanctions for violations of the international law 238
- "total war" and 241
- weapons of mass destruction and 225, 306
- War-decision law
  - actions taken in self-defense and 229
  - Age of Chivalry 224
  - application of 246
  - comparative justice condition 229
  - competent authority to go to war and 228
  - conditions constituting 224, 306
  - conditions for waging war 228
  - contemporary legal and moral restraints on 226
  - exhaustion of peaceful remedies and 306, 229
  - general presumption against war 228
  - historical background 223
  - just cause condition 229
  - nonmilitary sanctions and 229
  - principle of proportion and 240
  - probability of success condition 229
  - right intention condition 230
  - United Nation Charter and 226
- The Warriors, Reflections in Men in Battle* 278
- Washington County, MD
  - effects of religious and spiritual commitment on s 697
- Weapons Convention
  - napalm use regulation 225, 233
- Weapons of mass destruction
  - war-conduct law and 225
- Welsome, Eileen
  - documentation of human radiation experiments 523, 524
- Weltz, Georg August
  - hypothermia and hypoxia research 442, 459
- Werley, Dr. Harriet
  - nurses' participation in research 679
- What should Leah be told?
  - case study 689
- When Bad Things Happen to Good People* 706
- Whitbeck, C.
  - societal-cultural theory of medicine 71
- White, J.F.

- risk of ill health among female military personnel 726
- Whitfield-Bell, Elmerine
  - plutonium research and 525
- Whitney, Lt. Col. Carl L.
  - recruitment of volunteers for the Natick program and 571
- Wiggins, Capt. David
  - political pacifism case study 260
- Williams, Robert H.
  - blood preservation research 519
- Willowbrook study
  - public reaction to 73
- Wilson, Carroll
  - plutonium research and 525
- Wilson, Charles E.
  - human experimentation policy 521, 568, 569
- Wilson Memorandum
  - human radiation experiments and 568, 569
  - exhibit 522
- Wilson, Pres. Woodrow
  - American Relief Administration establishment 777
- Winslade, W.J.
  - clinical ethics definition 63
  - four-dimension grid for clinical ethics and 51
  - moral pluralism 46
- With the Old Breed, as Peleliu and Okinawa* 264
- Withholding or delaying treatment to facilitate interrogation
  - case study 397
- Wolthuis, Dr. Robert K.
  - humanitarian assistance role 788
- Women. *See also* Feminist ethics; Men; Nursing ethics and the military
  - Army's recruiting needs and 190
  - Civil War and the emergence of women from home to larger societal purpose 664
  - discharge of female military personnel who become pregnant 727
  - equipment and staffing problems associated with treating in humanitarian assistance programs 817
  - exclusion from direct combat 149, 189
  - exclusion of women from physiological testing as a common practice 579
  - gender integration support 190
  - health status of female military personnel 726
  - Hitler's "Honor Cross of German Motherhood" 411
  - Japanese biomedical experimentation on "Comfort Women" 489
  - military women's research program 555
  - non-surgical sterilization procedures developed by Nazi doctors 411
  - pace of integration into the military 149
  - parental role as a basis for discrimination 149
  - pregnancy possibility as a justification for excluding women from research protocols 556, 579
  - professional independence of 69
  - role of women in the armed forces 726
  - sexual abuse and 190
  - shift from midwifery for delivery of babies to German women 412, 419
  - special consideration under the Geneva Conventions 755
  - status in Nazi Germany 409, 411
  - supporting role for 148
- Wood, Leonard
  - combatant role 303
- Workups
  - clinical ethics 47, 75
  - ethical workup guide (exhibit) 52
  - mediation models 51, 53
  - principlism 36
- World Court. *See* International Court of Justice
- World Health Organization
  - ethical code 11
  - military investigators and the Ebola virus outbreak 539
  - multidimensional conceptualization of well-being 721, 735
  - objective of health and social well-being 725
- World Medical Association
  - adoption of rules concerning war and armed conflict 753
  - Declaration of Geneva 273, 301
  - document texts 766
  - International Code of Medical Ethics 273
  - stipulation that medical procedures must be for the benefit of the patient 755
- World War I
  - attacks on merchant vessels 172
  - care of subordinates and 166
  - chemical warfare during 239
  - gas warfare 233
  - humanitarian assistance after 777
  - hunger blockage against Germany 241
  - maritime law principles and 239
  - reaction against war as an instrument of foreign policy 224
  - retention of medical personnel to care for prisoners of war 746
  - returning soldiers experiencing combat stress to duty 373
  - starvation of German mental patients during 414
- World War II. *See also* Japanese biomedical experimentation during the World-War-II era; Nazi hypothermia and hypoxia research; Nazi medical ethics; *specific countries*
  - abstention from the use of gas 234
  - attacks on medical facilities 824
  - belief of the Japanese people that Japan was a victim rather than an aggressor in the war 491
  - "can do" ethic 170, 189
  - care of subordinates and 166
  - combat stress breakdown and 179
  - criticism of the officer corps 187
  - discrimination and 755
  - effect on Americans 69
  - emergence of communism after 201
  - firebombing of Dresden and use of nuclear weapons against Japan 172
  - growth of medical ethics since 25, 69
  - humanitarian assistance after 778
  - lack of a prohibition against genocidal conduct 230
  - medical aircraft protection under the Geneva Conventions 750
  - Op ten Noort* hospital ship detention by the Japanese 750
  - Ophelia* hospital ship capture 750
  - penicillin use for U.S. military personnel with venereal disease 297, 341, 383
  - physiological dilemmas concerning human performance in hostile thermal environments 439
  - policy of rotating soldiers in and out of units 166
  - protection of civilians under the Geneva Conventions 744
  - protection of irregular combatants under the Geneva Conventions 743
  - resistance movements and 238
  - retention of medical personnel 746, 752
  - returning soldiers experiencing combat stress to duty 373
  - returning soldiers with high fevers from malaria to duty 339
  - scientific and medical advances and 69
  - sleep deprivation and command decisions (exhibit) 191
  - strategic bombing 239, 241
  - tradition of threatening subordinates 187
  - weak and insecure commanders 187
  - women's participation concerns 726
- Wounded and sick

- benefit of military medical forces providing care 807
- caring for 754
- Geneva Conventions and Hague Conventions definitions of 743
- leaving behind 756
- locating and collecting 754
- medical personnel left behind with 756
- protection of under the Geneva Conventions 824
- Wounded and sick persons
  - protection of 237
- WRAIR. *See* Walter Reed Army Institute of Research

## **X**

- X-rays
  - sterilization by 411

## **Y**

- Yellow fever
  - research conducted by the U.S. military 511, 568
- Yin* and *yang* concepts 701
- Yoshimura Hisato, Dr.
  - postwar activities 494

## **Z**

- Zajtchuk, Col. Russ
  - medical mission in Honduras 786, 798
- Zelezny, Edwin G.
  - recruitment of volunteers for the Natick program a 571

































